DOCUMENT RESUME

ED 332 076 CG 023 333

AUTHOR	Taeuber, Cynthia M., Ed.
TITLE	Enumerating Homeless Persons: Methods and Data Needs. Conference Proceedings November 1990 .
INSTITUTION	Bureau of the Census (DOC), Suitland, Md.; Department of Housing and Urban Development, Washington, D.C.; Interagency Council on the Homeless.
PUB DATE	Mar 91
NOTE	223p.
PUB TYPE	Collected Works - Conference Proceedings (021)
EDRS PRICE	MF01/PC09 Plus Postage.
DESCRIPTORS	Census Figures; Evaluation; Evaluation Methods; *Homeless People; *Incidence

ABSTRACT

This document contains these presentations from the Enumerating Homeless Persons conference: (1) "Conference Welcome" (Pat Carlile); (2) "Conference Objectives" (Charles Jones); (3) "Deciding Where We Are" (Barbara Everitt Bryant, Cynthia M. Taeuber, and Tom Jones); (4) "Judging Where We Are Going and How to Do It" (Anna Kondratas); (5) "Facilitator Remarks" (Susan Miskura); (6) "Federal Data Collection Needs and Requirements" (Chris Walker); (7) "What to Look for in Studies That Try to Count the Homeless" (Martha R. Burt); (8) "Overview of Seven Studies" (Martha R. Burt and Cynthia M. Taeuber); (9) "National Survey of Shelters for the Homeless" (Garret Moran, David Marker, Alexa Fraser, Sharon Beausejour, and Janice Machado); (10) "Counting the Nation's Homeless Population in the 1990 Census" (Cynthia M. Taeuber and Paul Siegel); (11) "Assessments of the 1990 S-Night Census Operation and Overview of the Experimental S-Day Method" (Laurel Schwede, Matt Salo, and Pamela Campanelli); (12) "Developing the Estimate of 500,000 to 600,000 Homeless People in the United States in 1987" (Martha R. Burt); (13) "The Nashville Method" (Barrett A. Lee); (14) "Lessons from the 1985-1986 Chicago Homeless Study" (Peter H. Rossi); (15) "Estimation of the Number of Homeless and Mentally Ill Persons in Three California Counties" (M. Audrey Burnam); (16) "Techniques for Estimating the Size of the Homeless Population in Colorado" (Franklin J. James); (17) "The RTI Method: Sampling Over Time" (Michael Dennis, Ronaldo Iachan, Jutta Thornberry, and Robert Bray); (18) "Biases Arising from Choice of Site and Informant" (Kim Hopper); (19) "Biases Arising from Choice of Site and Informant: Who is Missed" (Pamela Fischer); (20) "Estimates of the Homeless in Houston, Texas" (Donald J. Baumann); (21) "Biases from Choice of Site and Informant" (George J. McCall); (22) "The Prevalence of Psychiatric Disorders" (William R. Breakey); (23) "Issues in the Selection of Measures" (Elmer L. Streuning); (24) "Sampling Issues in Estimating the Extent of Alcohol, Drug Abuse, and Mental Illness Problems" (Michael Dennis and Ronald Iachan); (25) "Discussant Comments" (Howard H. Goldman); and (26) "Counting the Homeless: What Counts?" (David S. Cordray). The final section contains work group reports on technical topics, such as sampling; definitions; validity, feasibility, and cost effectiveness; estimating undercounts; longitudinal studies; and methods to estimate the "at-risk" population. (LLL)

ED332076

Conference Proceedings for

Enumerating Homeless Persons: Methods and Data Needs

Cosponsored by

Bureau of the Census

U.S. Department of Housing and Urban Development

Interagency Council on the Homeless

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

This document has been reproduced as received from the person or organization originating it.

Minor changes have been made to improve reproduction quality.

Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

U.S. Department of Commerce
Economics and Statistics Administration
BUREAU OF THE CENSUS

CG0233333

BEST COPY AVAILABLE

Acknowledgments

Valuable contributions were made in planning and executing this conference by staff from the co-sponsoring agencies, the Bureau of the Census, the Department of Housing and Urban Development, the Interagency Council on the Homeless, and the Urban Institute. Staff from the National Institute of Mental Health developed a session and Fannie Mae provided funding for the participation of some participants. Key staff who participated in major aspects included the following:

BUREAU OF THE CENSUS
Catherine Hines
Tom Jones
Catherine Keeley
Charles Moore
Cynthia Taeuber
Annetta Clark

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
Mark Johnson
Michael Roanhouse

INTERAGENCY COUNCIL ON THE HOMELESS
Marsha Henderson

URBAN INSTITUTE
Martha Burt
Amina Elmi
Robin Ross
Chris Walker

NATIONAL INSTITUTE OF MENTAL HEALTH
Ron Manderschied
Roger Straw

FANNIE MAE
James Carr
Steven Hornburg
Patrick Simmons

The staff of Administrative and Publications Services Division, **Walter C. Odom**, Chief, provided publication planning, design, composition, and printing planning and procurement. **Gloria T. Davis**, Chief, Electronic Composition Section, and her staff coordinated the publication.

Issued March 1991

Conference Proceedings for

Enumerating Homeless Persons: Methods and Data Needs

Cosponsored by

Bureau of the Census

U.S. Department of Housing and Urban Development

Interagency Council on the Homeless

Edited by Cynthia M. Taeuber

U.S. Department of Commerce
Robert A. Mosbacher, Secretary
Rockwell A. Schnabel, Deputy Secretary

Economics and Statistics Administration
Michael R. Darby, Under Secretary
for Economic Affairs and Administrator

BUREAU OF THE CENSUS
Barbara Everitt Bryant, Director

Economics and Statistics Administration
Michael R. Darby, Under Secretary
for Economic Affairs and Administrator

BUREAU OF THE CENSUS
Barbara Everitt Bryant, Director
C.L. Kincannon, Deputy Director
William P. Butz, Associate Director
for Demographic Programs

POPULATION DIVISION
Paula J. Schneider, Chief

Contents

Page

Introduction
Cynthia M. Taeuber 1

SESSION I: INTRODUCTORY COMMENTS

Conference Welcome
Pat Carlile 7

Conference Objectives
Charles Jones 8

Deciding Where We Are
Barbara Everitt Bryant, Cynthia M. Taeuber, and Tom Jones 10

Judging Where We Are Going and How To Do It
Anna Kondratas 13

SESSION II: FEDERAL DATA NEEDS, NATIONAL ESTIMATES, AND HOW METHODS AFFECT THE RESULTS

Facilitator Remarks
Susan Miskura 15

Federal Data Collection Needs and Requirements
Chris Walker 16

What to Look For in Studies That Try to Count the Homeless
Martha R. Burt 23

Overview of Seven Studies
Martha R. Burt and Cynthia M. Taeuber 30

National Survey of Shelters for the Homeless
Garrett Moran, David Marker, Alexa Fraser, Sharon Beausejour, and Janice Machado . 77

Counting the Nation's Homeless Population in the 1990 Census
Cynthia M. Taeuber and Paul Siegel 92

Assessments of the 1990 S-Night Census Operation and Overview of the Experimental S-Day Method
Laurel Schwede, Matt Salo, and Pamela Campanelli 123

Developing the Estimate of 500,000 to 600,000 Homeless People in the United States in 1987
Martha R. Burt 130

SESSION III: ESTIMATING HOMELESSNESS AT THE LOCAL LEVEL

The Nashville Method
Barrett A. Lee 139

Lessons from the 1985-1986 Chicago Homeless Study
Peter H. Rossi 147

Estimation of the Number of Homeless and Mentally Ill Persons in Three California Counties
M. Audrey Burnam 156

Techniques for Estimating the Size of the Homeless Population in Colorado
Franklin J. James 164

The RTI Method: Sampling Over Time
Michael Dennis, Ronaldo Iachan, Jutta Thornberry, and Robert Bray 167

SESSION IV: BIASES FROM CHOICE OF SITE AND INFORMANT

Biases Arising from Choice of Site and Informant
Kim Hopper 171

Biases Arising from Choice of Site and Informant: Who Is Missed
Pamela Fischer 174

Estimates of the Homeless in Houston, Texas
Donald J. Baumann 177

Biases From Choice of Site and Informant
George J. McCall 179

SESSION V: PREVALENCE, MEASUREMENT, AND SAMPLING ISSUES FOR SPECIFIC GROUPS

The Prevalence of Psychiatric Disorders
William R. Breakey 181

Issues in the Selection of Measures
Elmer L. Streuning 185

Sampling Issues in Estimating the Extent of Alcohol, Drug Abuse, and Mental Illness Problems
Michael Dennis and Ronald Iachan 188

Discussant Comments
Howard H. Goldman 192

SESSION VI: OVERVIEW AND WORK GROUPS

Counting the Homeless: What Counts?
David S. Cordray 193

Sampling Issues 199

Definitional Issues 200

Validity, Feasibility and Cost Effectiveness 201

Estimating Undercounts and Examining Data Quality 204

Longitudinal Studies, Administrative Records, and Modelling Techniques 206

Methods to Estimate the "At Risk" Population 207

Conference Participants 209

Introduction

Cynthia M. Taeuber,
Bureau of the Census

Abraham Lincoln was both poetic and succinct about the reason for data collection when he said, "If we could first know where we are, and whither we are tending, we could better judge what to do and how to do it." He might have been quite surprised to find that his words provided the theme for a technical conference on methods of enumerating homeless persons.

Method has a critical effect on results and much controversy has surrounded methods for counting homeless persons. The central purpose of the conference was to improve research methods and data collection on homeless persons to provide results reliable enough to make judgements about where we are. Those present at the conference provided valuable insights as they dissected methods already tried by a stalwart band of early researchers, sought to integrate diverse lines of endeavor, shared new ideas, and spoke thoughtfully of challenges for future data development and research.

Those who participated in the conference were researchers and policy makers in federal and state governments, university researchers who had taken part in the frontiers of research projects to count homeless persons, and advocates for homeless persons (see list of participants in the appendix). The conference was a rare opportunity for direct communication among leading researchers from diverse fields and the policy makers and program administrators who struggle to understand the practical implications of the scientific findings and use the information for real and perplexing problems. Their thoughtful exchanges returned again and again to core questions and the realization of the complexity of homelessness and the diversity of the individuals involved.

The conference explored technical details of surveys on the homeless. On the first day, conference participants looked at federal data needs, the assumptions used in national estimates, the various methods that had been tried both nationally and locally, how specific methods affect results, the biases from choice of site and informant, and examples of statistical issues that are specific to unique groups such as the mentally ill, alcohol and drug abusers, and the physically disabled.

On the second day, a smaller group of invited methodologists and government researchers and planners explored specific statistical questions in depth and made recommendations for future research. The topics were: (1) sampling issues; (2) definitional issues; (3) the cost effectiveness of various methods; (4) data quality; (5) longitudinal studies, administrative records, and statistical models; and (6) methods to estimate the population "at risk" of homelessness.

Research on the homeless may be at a turning point now. Early in the past decade, small groups of investigators worked in near isolation with inconsistent, sometimes unsophisticated methodologies, conflicting findings, and with little agreement about priorities or concepts. A later generation of studies were statistically more sound, but for the most part, locally based and descriptive rather than explanatory. The gradual accumulation of knowledge now provides a momentum and high potential for more effective, analytical research to inform public policy.

The case was made more than once at the conference for a more flexible approach of presenting data in identifiable subsets to enhance comparability. Even though the term "homeless" is used commonly, it evokes different pictures for different people. When studies have different definitions with little classification detail, comparisons cannot be made. The categories may not reflect what people think they mean. This has led to confusion, inappropriate comparisons, and arguments.

Those at the conference began to devise a clearer conceptual framework and direction for future studies about homeless persons. Analogies were drawn from other fields of classifications which provided results that could be used for action. For example, to gather poverty statistics, we do not ask, "are you poor, middle income, or rich?" Rather, we ask for specific sources and amounts of income. An array of income data are then used in many different contexts. A specific poverty index has been devised and is generally used, but for some purposes, 125 percent or 200 percent of the poverty line is used instead. If one wishes to challenge the composition of the index, one can find out which elements are or are not included. Basic data are available to devise alternative indexes of poverty or sometimes new data are desired. A second analogy was to the classification of persons as unemployed. Some persons move in and out of unemployment more than once in a year. Consistent classification is needed for people in very different circumstances such as seasonal workers during their off season, migrant workers between jobs, persons on layoff, on strike, in the hospital, self employed, and so on. Homeless persons also live in many different circumstances that need to be considered in data collection and data classification.

Many of the investigators present at the conference were those who had made seminal contributions in the last decade in surveying homeless persons. They shared what had worked in their studies and what had not, sources of bias, and how they thought research could be improved. Statisticians who were expert in particular aspects of survey research but who had not worked specifically on counting homeless persons were there to share solutions to similar problems from other fields. In this way, the conference consolidated the relevant research experience of the past decade and provided a foundation for further scientific advances. While many perplexing questions remain, not all problems were imponderable and techniques for finding some answers are at hand. Examples are given throughout the papers that follow.

Central themes emerged that can serve as *broad, guiding principles* for development of the field for public policy uses, and for creating a durable agenda for future work to advance effectively our knowledge of homelessness. The guiding principles include:

(1) Develop a conceptual framework that describes the heterogeneity of "the homeless" through "intelligent segmentation"[1] of the homeless population into policy relevant groups.

(2) Acknowledge that no single definition is universally acceptable. Therefore a range of purposes should be accommodated through data collection and tabulation. Through research, develop a list of conditions of homelessness, find the settings where people with the named conditions are likely to be found, interview everyone at the location (that is, no screeners to eliminate people from the survey), and provide more detail in data presentations about the range of characteristics of persons at the sites (that is, develop a "continuum of markers"[2] associated with the conditions of homelessness).

(3) Coordinate federal data development and research which would have benefits such as:

- reducing overlap in data collection by standardizing data requests to the states and developing a national data system;
- encouraging agencies to share advances in statistical techniques and methodology;
- coordinating gaps in data development and research; and
- coordinating federal research to be sure all appropriate agencies are involved, to identify emergent concepts and priority areas for substantive research, and to establish a forum for consolidating research experience and sharing research results.

[1]See opening remarks by Anna Kondratas.
[2]See remarks by David Cordray.

(4) Extend the use of existing household surveys to identify the factors that trigger homelessness and the vulnerable population "at risk" over time.

(5) Establish longitudinal surveys and models with explicit assumptions to deepen our understanding of the dynamics of homelessness.

(6) Use probability-based surveys more and unobtrusive observation surveys less for including in the knowledge base an assessment of needs and treatments.

(7) Funding for both basic and experimental research is needed in this field on (a) the magnitude and types of problems of homelessness and (b) the delivery of services from a longitudinal perspective. Such research stretches the traditional methods of statistics at times. As such, some have the view that it has not fared very well in Federal grant applications. It was suggested that Federal agencies should use special review groups of persons who are more familiar with the issues and special problems of this type of research than are standard review groups.

(8) Provide "consumer warnings" about the data. Document the methodology used and groups included in a study so that comparisons among studies can be made appropriately.[3] Where possible, explain the implications of not including certain groups. Also, report the level of uncertainty (at least for sampling error; judgment about nonsampling error where possible) for estimates.

(9) Provide opportunities for policy/program persons to articulate their priorities and data needs before data are developed and before technical decisions constrain the data that will eventually be produced.

CONFERENCE THEMES PRESENT CHALLENGES FOR THE FUTURE

Against the backdrop of the central themes listed above, we can develop over the next decade an array of emerging and undeveloped topics for research and data on homeless persons. The gaps show how much is left to be done. Imaginative new conceptual and methodological approaches are needed for sustained growth of knowledge in this field. In line with this, the conference provided an agenda for substantive areas of research and data base development to complement the research completed thus far.

Expansion of data bases is essential for meeting policy goals. The logic of coordinating data needs among federal agencies surfaced repeatedly. Some looked to the conference to recommend research methods that local areas could use to produce data for federal aid applications. Representatives from state and local governments expressed concern about the cost and technical expertise needed for extensive data collection at the local level. They also felt that too much of the burden for supplying data about homeless persons has fallen on service providers. Often providers receive duplicate requests or slightly different requests for information which is an inefficient use of limited personnel. Some conference participants felt that standard, periodic collection of basic data would be more useful and efficient.

Others suggested we could move towards a three-tiered approach to data collection:

(a) Local governments or service providers would provide simple, standard data about individuals on a continuing basis that would be nationally comparable (privacy issues would have to be considered);

[3] See sample of useful items for documentation in the paper by Burt and Taeuber, "Overview of Seven Studies That Counted Homeless Persons."

(b) Federal funding of some sophisticated studies (including longitudinal surveys) of selected local areas. This would give ideas about the focus for larger national studies, much as epidemiological studies are used in health; and

(c) Develop a periodic national survey to provide detailed data about the characteristics and personal history of specific groups of homeless persons. In addition to providing a basic data base, this would provide plausible research areas to follow up on to get at the causes and effects of homelessness. Many recommended that an interagency task force be formed to coordinate research and explore in more depth the options and needs for data.

SELECTED COMMENTARY FROM CONFERENCE DISCUSSIONS

The formal papers given at the conference follow these introductory comments. The discussions evoked by the formal papers brought out many arresting points and concerns. The issues listed below are illustrative of a three-fold agenda that describes gaps in current knowledge in terms of definitions and estimates, causes and effects of homelessness, and research methods.

1. Definitions and Estimates

Annual estimates. Most estimates of the number of homeless persons are for a particular point in time. Projects to produce annual estimates of homeless persons have been based on the assumption that people become homeless only once in a year's time, an assumption which research has recently shown to be wrong. With that assumption, the researcher takes the number of people who have been homeless for a short time period (usually a month) and then assumes the same number become homeless every month of the year; that number is multiplied by 11 and added to the number derived from the survey. This will produce an overestimate.

Sometimes data users want the number of persons that have experienced homelessness in a year. But others need the count of service requests. These are two quite different figures and require different methods to obtain.

Length of time homeless. This is an important variable that should be included in studies. The following questions are needed: month and year became homeless for current episode; the number of prior episodes if any; the month and year earliest episode began; and the proportion of time spent homeless since the beginning of the first episode.

2. Causes and Effects of Homelessness

a. Those that are endemic to long-term homelessness:

Process of becoming homeless. Most research does not address the process of becoming homeless. In studies of other target groups, such as drug and alcohol users, AIDS patients, illiterate adults, and very poor persons, researchers find that many members had experienced homelessness at some time.

b. Those that are transitional instabilities:

Exits from homelessness. Transitions in and out of homelessness need more careful conceptualization. Several researchers have done or are doing studies of people's movements in and out of homelessness (for example, Irving Piliavin, Marjorie Robertson, and Audrey Burnam). If "exit" means "no longer living in a shelter or on the street for two or more weeks," Piliavin found that in Minneapolis, over 70 percent of the homeless people exited for at least two weeks (the average was about 50 days) and the majority became homeless again within a year. If a more stringent definition is used, such as including only persons paying at least a

portion of housing costs from earnings, only about 10 percent of those who had left the shelter or street for at least two weeks would be defined as exiting homelessness in the Piliavin study. All longitudinal samples are subject to attrition; parametric procedures are often used to adjust for this but there are many questions about those procedures and nonparametric procedures are being investigated.

3. Research and Methodological Issues

Surveying shelters and service centers only. If virtually all homeless persons use services at some point, some surveys could be simplified and costs reduced greatly by focussing on the locations where services are delivered and eliminating the street portion of the research protocol. Whether the street portion should be eliminated depends on the uses of the data. For example, if the primary aim of a local study is to improve service delivery, this approach makes sense. For other purposes, research is needed to determine how many would be missed entirely by this approach, what the implications are of the misses, and how this fits into an overall assessment. This is a prime example of where we need to provide "consumer warnings" about what is in or not in the data set.

Some conference participants said they thought more street people are avoiding traditional service sites (that is, buildings) as outreach programs increase. This points to the need to include the information of outreach workers. Some speculated that in some cities, homeless persons can get food from restaurants and other places rather than go to soup kitchens (New York City and Hawaii were given as specific examples). It is not clear that this is a significant proportion of the street population in most areas.

The service site approach is probably less useful in small towns and rural areas because of the lack of service facilities. Food distribution centers, such as food pantries, should be included in studies. Some cautioned that the more we use service providers as informants, the less likely we are to find the people who do not use services. Others countered that finding the well hidden is too costly and surveys should concentrate on the people who use services since they are already serving more people than they have funds for.

Shelter and street lists. Surveys use shelter and street lists for sampling. The street sites homeless people use change often. As a result, "expert informants" do not always have good advice as to which blocks are most likely to contain homeless people. We are also learning that in some areas, a significant proportion of people do not stay all night at shelters. As a result, there may be overlap between the shelter and street population in the early morning hours (usually after 4 a.m.).

Respondent error. More studies are beginning to check answers respondents give. For some questions, respondents may not know or remember the answer (especially for long past or multiple events). For some, they may feel sensitive about answering (for example, whether they are homeless, whether they received an honorable discharge from the military). Record checks can be used but sometimes records are wrong. Paying respondents for participation may distort reports about homelessness.

Capture-recapture methodology. There was disagreement about the value of "capture-recapture," a modelling method for estimating the size of the homeless population. In this method, homeless persons are observed multiple times and the frequency of observation is used to model the size of the entire population. Movement in and out of an area, which has not been estimated well in the past, is one of the primary difficulties with this method. Several local studies do use this method.

Ethical issues. More than one researcher noted that after interviewing homeless persons, many interviewers were upset about the stories they had been told. No one knows how the questions affect homeless persons as unhappy memories are dredged up.

Economic conditions of cities. Martha Burt reported on a study she did of the characteristics of cities that were related to levels of homelessness. The most important factors were employment structure and quality of jobs available. The percentage of one-person households was the best predictor of homelessness. Poverty rate was not related to the homeless rate. This has led her to the view that homelessness is an aspect of our changing economic condition and falling living standard for working people, especially those with poor education or skills.

Rural studies. Beverly Toomey described the key informant network ("snowball technique" which is also known as "multiplicity sampling") they developed in their study of homelessness in rural Ohio. Informants included park rangers, welfare directors, mental health workers, homeless coalitions, ministerial associations, librarians, gas station attendants, and laundromat keepers. A large proportion of the rural homeless they found were doubled up in the households of other people.

SUMMARY

Homelessness is a complex issue and presents many challenges for research and data collection that, while not precise, is good enough for practical purposes. The collective knowledge of those attending the conference gave us direction and new ideas for meeting the challenge of Abraham Lincoln to know where we are and whither we are tending.

Conference Welcome

Pat Carlile
Executive Director, Interagency Council on the Homeless

The Interagency Council on the Homeless has made it a priority to provide information on homelessness to the people who are actually working with the homeless. We also provide technical assistance to providers and others and make recommendations to Congress about what we can do as a country to improve our direction and reach our goal, which is to help end homelessness. Part of our mandate is going to be addressed today, which is to provide technical assistance and information as well as identify recommendations.

So, we hope that working with you, the experts who happen to be collected here in this room today and having the benefit of all the knowledge that you have gained over the years that you are going to share with us, we will be able to develop reliable and cost effective methodologies that the Federal Government can use and that the states and local groups can use as well. As we all know, this is a struggle that we have had for a while and it will be really valuable to be able to collect information on the homeless, and to at least agree that we're going along the same path by discussing the effectiveness of approaches which have been tested.

One critical goal of the Administration is to provide integrated, comprehensive care which combines housing with supportive services. I think Anna Kondratas and others will talk more about that as we go along. But, it's very hard to direct funds to specific subpopulations of the homeless if we don't know the numbers, if we don't have an idea of the population that is out there. So not only will we hopefully have a valid methodology to use, but one that we will be able to use for subcomponents of the population.

I want to say that I'm excited about this. I know that this is something that we absolutely need and have needed for a long time and I am very, very grateful that you were willing to come here and to share your expertise with us and to really work through this most complicated problem to help end this tragedy.

So with that, I'd like to now introduce you to our next speaker, who is here to welcome you, Charles Jones, the Associate Director for Decennial Census, Bureau of the Census. Please help me to welcome him.

Statement of Conference Objectives and Introduction of Speakers

Charles Jones
Associate Director for Decennial Census
Bureau of the Census

Thank you Pat and thank you participants for joining us today at this conference. We at the Census Bureau and the Department of Commerce are proud that we can have a role in co-sponsoring this important opportunity to discuss enumeration of homeless persons. We hope to examine where we are and whither we are tending in meeting the need for data about homeless persons.

As Associate Director for the Decennial Census at the Census Bureau, it is a particular pleasure for me to participate in a conference not related to the 1990 census. For the last year many of us at the Census Bureau and the Department have been consumed with carrying out the largest statistical enterprise in our Nation. We are not yet finished with the census. We are now moving from the data collection stage into the important data dissemination stage. So we can't set back and prop up our heels but we do have some breathing room to reflect on what has been accomplished so far as well as to contribute to important forums much as this.

Before I proceed with my responsibility this morning, which is to state the conference objectives and introduce our first two speakers, I want to say a few words about the status of the 1990 census. I don't know what you may have read in the papers about the census, but there's a good chance it wasn't true. So I want this room of key data users to know you can still count on the 1990 census.

Our goal in the 1990 census was to take a full, fair, and accurate census. We think we did that. Of course, there were some small problems with the 1990 census as there have been with every census. But there were some striking successes as well. We had a sound plan for taking the census and we implemented it fully. Some people thought the census was over in April but, in fact, important followup and coverage improvement operations occurred throughout the spring and summer and into this fall. We were responsive to difficulties and added extra procedures as necessary. And we concentrated most of our efforts on the most difficult to enumerate segments of the population.

We were able to complete the full complement of planned coverage improvement operations and undertook a major new recanvassing initiative to make sure the counts were as complete as possible. These coverage improvement programs have worked, although we will not know how well until we have finished our planned evaluation studies. We know these programs have worked because they have added some 2 million persons to the census counts since we released the preliminary local counts in August. A disproportionate share of the added persons have been minorities.

How accurate is the 1990 census? It is too early to say. A clearer picture will develop when we have finished the data collection and processed the data from the census, and when we have completed our coverage measurement evaluations.

Meanwhile, the data will soon begin to flow. We are nearing one of the most important milestones in the decennial census cycle: on or before the end of next month—December 31, 1990—we will deliver to the President the state population counts and the number of seats to which each state is entitled in the House of Representatives. We will also meet our legal mandate to produce the small area data for redistricting and deliver these to the states by April 1, 1991. Later in 1991 the detailed computer summary tapes, containing a wealth of information, will begin to come out.

Now, I will move on to why we are here today. The meeting agenda sent out with the invitations lists five conference goals. Although, you have all seen these, I think it would be worthwhile to go over them one more time:

First, to determine data needs of the federal government for planning and funding programs.

Second, to collect and review major existing methodologies.

Third, to determine how different methodologies and definitions affect the counts and the ability to meet program requirements.

Fourth, to provide an opportunity for methodologists working on this issue to meet and discuss their approaches in detail.

Fifth, to recommend a future direction for data collection.

To get us started this morning toward meeting these goals we have Barbara Bryant, Director of the Census Bureau, and Anna Kondratas, Assistant Secretary for Community Planning and Development at the Department of Housing and Urban Development.

First, Barbara will talk about "Deciding Where We Are: The Effect of Method and Definition on Counts of Homeless Persons."

Barbara is the 31st Director of the Census Bureau and the first woman director. She was appointed under a recess appointment by the President in September 1989 and was officially confirmed by the Senate August 4, 1990. She brings with her over 20 years of experience directing social research. At her official swearing in ceremony Secretary Mosbacher noted: "We are very fortunate to have Dr. Bryant as our leader in this great effort, the decennial census. She parachuted into the job at the last minute." Parachuted is an apt verb since the census is war and Barbara has provided much needed reinforcement and leadership to our effort. I am happy to present the Director of the Census Bureau, Barbara Everitt Bryant.

Our next speaker is Anna Kondratas, Assistant Secretary for Community Planning and Development at the Department of Housing and Urban Development. Anna is responsible for the management of HUD's programs to assist and end homelessness. Formerly she was the Administrator of the Food and Nutrition Service at the Department of Agriculture. And she is coauthor of the book *Out of the Poverty Trap.* It is my pleasure to introduce Anna Kondratas.

Deciding Where We Are: The Effect of Method and Definition on Counts of Homeless Persons

Barbara Everitt Bryant, Director
Cynthia M. Taeuber, Population Division
Thomas A. Jones, Office of the Assistant Director
Bureau of the Census

You have just heard a description of the formal goals of our meeting. I think we can all agree that we have our work cut out for us. And if we can accomplish these goals, we will have achieved quite a lot.

This conference follows the Census Bureau's efforts to improve coverage of components of the homeless population in the 1990 census. Our experience in mounting the largest-ever national project to reach out to this segment of the population makes us feel it is appropriate and timely for us to co-sponsor this conference, which brings people together from various fields to share what has been done so far, what has worked well, and what has not. We want to review important studies that have been conducted. That will help all of us to position ourselves to move forward to the next generation of studies. I believe we have prepared an interesting agenda that will allow us to do that.

Oddly enough, we have a well planned, well structured agenda that, if we are lucky, could lead to "chaos." I probably should explain what I mean by "chaos." I'm not advocating anarchy, disarray, discord, muddle, or confusion. I'm referring to the science of chaos, which was developed in the 1970's and which is taking much of academia by storm. Natural scientists developed the science of chaos as a way of seeing order and pattern where formerly only the random, erratic, and unpredictable—in short, the chaotic—had been observed.

I don't claim to be a student of this new science, but in a passing acquaintance with the literature of chaos, two themes seem to stand out that I think we should try to incorporate into this conference.

First, the theorists of chaos found, as James Gleick says, that "central discoveries often come from people straying outside the normal bounds of their specialties." We have to take risks. We have to be free thinkers. We have at this conference people who have conducted research on counting homeless persons. We want them to share some of the pearls and some of the grit that they have found in their studies. By bringing together participants from diverse backgrounds and by developing the agenda as we have, we want to try to see old problems in a new light. We hope to recognize problems and solutions we did not see before. We have here at this conference sociologists, statisticians, demographers, anthropologists, and psychologists. My hope is that with such a cross section we can have, if not a revolution in thinking, at least some useful revelations that will alter the way we talk about the issue of counting the homeless.

Second, the chaologists seem to stress fundamentals. That doesn't mean reinventing the wheel but it does mean, as I see it, reexamining basics from a fresh perspective. And reexamining basics and fundamentals is what this conference is all about.

Nothing is more fundamental to the issue of counting the homeless than definition and method. What we hope to accomplish with this conference is to achieve an understanding of how various methods and definitions affect the counts and characteristics we will end up with. We also want to determine data needs. Technical people often work in a vacuum, and at the end of the process, policy and program people are disappointed with the product. Policy and program people need to communicate with technical people about their specific data needs at

the stage of developing the data, that is, at the stage of defining and choosing methodologies. It is at this stage that technical decisions will constrain the type of data that will eventually be produced. We need coordination at the development stage to maximize the usefulness of the end product.

Technical definitions and methods chosen affect the data, which in turn affects our view of where we are. If you do not have data, the problem tends not to be defined. If you have poor data, the problem can be defined incorrectly. If you have conflicting data, the problem can be overshadowed by the debate on the data. It is difficult to plan programs and allocate resources with ambiguous data.

Let's look at the problem of definition, for example. There's disagreement about whether the homeless include just those living in shelters and on the street or whether the homeless should also include those who are doubled-up or otherwise precariously housed. There is vagueness about just what a shelter is. Should low-cost, nonsubsidized units such as in YMCA's and single-room-occupancy buildings be part of the shelter universe even though the cost is usually paid by the occupant? In our March S-night operation, conducted as part of the 1990 census, some cities included them on their shelter lists and some did not. Then there are ambiguities in legislation, such as the McKinney Act, which says persons who are in institutions other than jail should be considered homeless. But nursing homes and mental hospitals are institutions. Does the act mean that these should be part of the homeless universe? What about persons living in abandoned buildings who have brought in furniture? Some people call them "homeless," some say they are squatters. Policymakers and data users need to tell statisticians what they want and what their objectives are. When we choose a sampling frame for our surveys, we effectively define the population for which data will be available.

The definitional problem gets even more complex when you try to define categories of homeless people, such as the mentally ill or substance abusers. This problem is nicely described by Alice Johnson, one of our participants, in the December 1989 issue of *Social Work Research and Abstracts.* She notes that in the case of determining mental illness, six types of assessment have been used, all of which can lead to different results.

Because of the definitional disagreements and ambiguities, the Census Bureau did not attempt to provide an official definition of homelessness nor will we provide a total count of the homeless population in the 1990 census. Our S-Night operation, like other coverage improvement activities in the 1990 census, was never expected or intended to obtain complete coverage of the homeless as there is no agreed upon population definition. Rather, we will provide counts of selected components of the homeless population.

Now, let me turn to the issue of methodology. In August 1988, the General Accounting Office submitted a report on the methodological soundness of current population estimates of the number of homeless persons in the United States to the Senate Committee on Labor and Human Resources. Of the 27 estimates, 3 were national and 24 were state or local. The GAO rated none of these studies "very high" in terms of technological soundness. It rated 10 studies as "high," all local studies. Seven studies were rated "moderate" and 10 were rated "low" or "very low."

The GAO classified the studies into three types: those that used expert judgment as the basis of the estimate; those that relied on administrative records or records about the utilization of services; and those based on surveys or censuses. Nine of the ten studies that were rated high were based on a survey or census. All of the studies based on expert views were rated low or very low.

Now, it is not my intention to endorse GAO's rating system, especially since the Census Bureau's lone foray into counting components of the homeless came after GAO's report and was not rated. My point is that up to now, a host of different approaches have been tried with

differing results. GAO concluded that "there is a small number of studies that provide reasonably sound estimates of the homeless in specific localities. However, no single study in this group addressed all source of bias associated with inquiries of this type."

Well, we are basically at the point where we are still searching for the right method or methods for counting the homeless. We hope that this conference will illuminate some of the methods that should be dropped and make clearer the family of methods that we should continue using and ways to improve them.

You are going to hear several presentations this morning and this afternoon on methodology, as well as on the topic of data needs, which is the first stage of development.

As our discussions progress, I hope we can avoid being overly protective of our methods so that we can examine critically what worked and what did not so we can all move ahead to the next generation of studies.

I came across this quote by Tolstoy recently, and I think it is apt, if a little wordy: "I know that most men, including those at ease with the greatest complexity, can seldom accept even the simplest and most obvious truth if it be such as would oblige them to admit the falsity of conclusions which they have delighted in explaining to colleagues, which they have proudly taught to others, and which they have woven, thread by thread, into the fabric of their lives."

Put more simply, what Count Leo meant was that it is sometimes hard to admit when one is wrong and to accept that another approach might be better. I don't think we have that problem among any of our participants here. The mere fact that we are holding this conference is an admission that, whether in the area of definition or method, no one is satisfied with where we are. Working together and sharing our accumulated knowledge, I am confident that we can make progress on these issues.

Judging Where We Are Going and How to Do It: Federal Data Needs for Making Policy Related to Homeless Persons

Anna Kondratas
Assistant Secretary for Community Planning and Development
Department of Housing and Urban Development

Thank you very much. I'm really delighted to be here. I have looked forward to this Conference for a long time. I think it's long overdue, because policymakers need intelligent discussions of the kinds of things that you are here to discuss - how we put numbers together, what they really mean, what they indicate, and how they can help us to help people. Too frequently discussions on these topics are emotional and unilluminating.

The reason I say this Conference is long overdue is because if it had happened eight years ago, we might have had a far more intelligent homeless policy at the Federal level. Numbers are not political banners and they should not have been used as political banners, but that's essentially what they were over the last decade. Numbers should be useful tools. We must never forget, however, that they are only tools and that they are never the Whole Truth with a capital "T." That's my approach and attitude towards them and I hope we can learn much at this conference that will make our programs more useful.

Unfortunately, I will have to leave for part of the day, together with Pat Carlile, but it's an exciting interruption. We are going to the White House to witness President Bush signing the McKinney Act of 1990, which will provide an additional $800 million for homeless programs. As you know, the McKinney Act has already provided over $2 billion for homeless programs and we hope we can make the programs better with your assistance.

As I mentioned, the reason for accuracy is to enable us to help people and that is why we need the numbers in the first place. The Federal Government's need is for operational definitions. Barbara Bryant gave a very good summary of the kinds of problems we run into because there is no one definition of homelessness. So far as the current needs of the Federal Government are concerned, an overall total is far less important than *intelligent segmentation,* so that we can design programs that are suitable for the different types of homeless persons. A program for the homeless mentally ill on the streets is far different from a program for victims of domestic violence in suburbia, or homeless welfare mothers who cannot afford to pay rent in high-cost housing markets.

These are all very different social problems, and a single label like homelessness is less than useful in making policy, particularly when it tends to emotionalize the issues. We need to be able to end homelessness and we can only end homelessness if we address a whole array of social problems. We need homeless numbers to be operational.

As you know, one of the problems we have always had in defining poverty, and why it is unlikely we will ever have a total homeless number or homeless definition that is undisputed, is because homelessness, like poverty, is not something with discrete boundaries. There's a continuum of shelter needs and lack of adequate shelter. It's not either/or. Homelessness and poverty are relative concepts. If all we argue about is definitions, we will never accomplish our common goal, namely, ending homelessness as we attack the social problems leading to homelessness, a blight on American democracy.

One other thing that I would like you to keep in mind, and that I will be keeping in mind as I listen to you addressing some of these very difficult problems of counting, is that expansions of the definition of homelessness can be counterproductive. Government has to marshal resources and target resources to accomplish the most for the money. Sometimes it may seem to advocates that they can apply the most political pressure for more funding if we come up with numbers as high as we possibly can. But actually, inflated numbers resulting from fuzzy nonoperational definitions make it extremely difficult to target resources and actually design effective programs for specific problems, and can result in backlash against the homeless as the public perceives the programs to be ineffective.

Again, I welcome you here, I'm very excited to be here and I hope this is only the beginning of a really productive relationship between researchers and scholars and policymakers and program administrators. Thank you.

Facilitator Remarks

Susan Miskura
Chief, Decennial Planning Division
Bureau of the Census

Good morning, I am pleased to add my welcome to that of our earlier speakers. As chief of the Decennial Planning Division at the Census Bureau, I am among those of us who have worked on the challenge of assuring that everyone, including people who are homeless by any definition, was counted in the 1990 census. We have been looking forward to this gathering to share our experiences and to hear yours.

The rest of this morning, we will be hearing from various experts about Federal-level data needs, about data derived at the Federal level, and methodological approaches. My role as facilitator will be to help avoid unscientific chaos in our schedule and discussion. We want to make sure we have sufficient time for our discussion, while hearing the full contingent of presentations. So let me begin by introducing Chris Walker of The Urban Institute.

Federal Data Collection Needs and Requirements for Policies and Programs to Assist the Homeless

Chris Walker
Urban Institute

The theme of this conference is enumeration—counting people—and how our methods affect results. However important, counts of the population are only a part of Federal data needs related to homeless program development and policymaking. In fact, counts of the homeless may be linked only weakly to homelessness as a policy issue. The primary reason the Census Bureau tried to include homeless persons in the 1990 Census was because their overall goal is to count the entire population. Secondarily, they were trying to respond to public demand for information on the homeless population. Indeed, local counts more often are driven by the need to make policy specifically for this population, in which case housing status is central to the object of policy. In some ways, counting the homeless is the last thing the Federal agencies need to do. Whether in response to Congress or their own program management needs, Federal managers are initially driven by the need to measure and track expenditures and services: obligations and outlays, shelter beds, service units are of primary concern. Therefore, in addition to discussing the appropriateness of homeless population counts generally for policy purposes, this paper describes a range of Federal efforts in homeless program data collection. I am primarily interested in the feasibility of expanded information sharing and coordinated data gathering across Federal agencies, and across levels of government.

Federal data needs consist of information linked to interest: agency service to a clientele and management of policy problems for that clientele inform data collection. The homelessness issue is unique in the degree of overlap among agencies on policy responsibility and information generation. For a single agency to make policy based on sound information in this environment is doubly difficult: this population is by nature tough to find out about; jurisdiction and policy responsibility is fragmented. Cooperation among agencies to generate useful information for policy and program management purposes is a promising way to overcome some of this difficulty.

This interagency overlap of program clientele produces no inexorable impulse to cooperation on policies or programs (and hence on information), but it does create opportunities. For example, the Memorandum of Understanding between the Departments of Health and Human Services and Housing and Urban Development, pledges cooperation in a new anti-poverty effort. It would be difficult to imagine a policy issue more conducive to cooperative policy and program development than homelessness; an issue where the goals of delivering services on the one hand— traditionally the province of HHS—and creating physical capacity on the other—HUD's charge— are so clearly linked.

That these policy linkages exist and are recognized is a necessary but insufficient condition for cooperative efforts to collect, organize, and analyze information on a shared homeless clientele. To develop useful information across agencies, program managers must adhere to reasonably consistent standards of definition, level of analysis, data coverage, collection method, data aggregation, and type of respondent. At the same time, this consistency must be achieved without imposing uncompensated costs, which may accrue either to an agency that strives to meet a standard of data coverage and quality clearly inappropriate to its management tasks, or to data providers. The latter is particularly troublesome in a Federal system, and especially where Federal informational mandates are not accompanied by the funds to pay for compliance.

To return to agency interests, each agency must develop policy, evaluate programs, and manage them. Any assessment of information needs and the appropriateness of required data collection must be clearly tied to this trichotomy of objectives: policy development, program evaluation, and program management. Each implies a different standard of acceptable data quality and method and frequency of collection. Program and policy development will typically

rely on one-time data collection efforts from samples of the grantee or clientele population, supported by other, routine, program data. Program evaluation may require intensive one-time data collection, but is much more likely to rely on periodic grantee reporting and other management information derived from agency records. Program management is most dependent on grantee reporting, including other management data such as financial drawdown reports. Boundaries, as always, aren't clear: program management data can support evaluative work within a single agency. Program evaluation in one agency can support policy development work in another.

In the discussion to follow, I will outline (1) Federal data collection objectives and the information needs tied to those objectives, (2) opportunities and problems in coordinated information generation, and (3) intergovernmental issues in compliance.

FEDERAL AGENCY OBJECTIVES AND INFORMATION NEEDS

Policy and Program Development

Whether Federally-sponsored, Federally-mandated, or purely local, the collection and analysis of homeless population counts contribute little to direct program delivery. That is, this information is not at all linked to outcomes—a served clientele—but more generally to a target population. These data are more useful for overall program policy making. But this linkage is not always clear to those whose job it is to collect and report these data, and policy development often proceeds apace without information in any case. Justification for efforts to count or otherwise assess the needs of this population is often difficult. If counts can lead, as Assistant Secretary Kondratas has said, to "intelligent segmentation of the population," they can be used to bolster efforts to legislate appropriate policy responses. If counts are conducted or required out of a generalized belief that more data is better than less data—that is, divorced from a concrete policy objective—homeless counts are just extremely interesting applied methodological problems.

The broadest possible policy development task—one for which the clientele literally is defined as "the homeless" is the need to assess the feasiblity of, and if possible develop, a formula for the allocation of McKinney Act funds, as required by the Cranston-Gonzalez Housing Act. Here is the purest possible rationale for simple enumeration: funds should be earmarked for a political jurisdiction based on the numbers of homeless found there. Ironically, this charge must be carried out in advance of the Census nationwide count, which as we know, is not strictly speaking a "homeless count" even though it is as close as we will get to one. Thus, while the Census count undoubtedly will be used for policy purposes, it cannot contribute immediately to this one.

Thus, policy development in this area will rely on data that proxy, but do not measure, the extent of homelessness. However difficult this task is in practice, we know pretty clearly what criteria to use to evaluate the formula; we are less sure what information would be needed to develop the indicators. This formula would be (1) a valid proxy—perhaps some combination of population, poverty, rent-to-income, or other measures, (2) a dynamic indicator—one that could reflect improvement or deterioration over time, and (3) readily interpretable. Very clearly, not all of these goals will be met in equal measure. In the absence of an ideal formula, we will settle for an adequate one. An adequate formula is, simply put, a "regionally-balanced" variant of the ideal one.

Whatever formula is devised, Congress will be the direct consumer of the estimate it produces. In addition, Congress in two instances has required that recipients of Federal funds make their own population counts or needs estimates—not necessarily because the Congress wants them but because the Congress believes that other levels of government need them. These are the Department of Education counts of homeless youth and HUD's Comprehensive Homelessness Assistance Plan (CHAP). Both are object lessons in the limits to required local information collection as contributors to policy development.

The Department of Education requires of state educational agencies an estimate of the numbers of homeless youth. These estimates form part of each state's statewide plan, which must assess the severity of local need and describe barriers to serving this population. Though

the Department has issued episodic guidance on how to conduct the counts, this exercise in national counting is marked by a thoroughgoing inconsistency of method. Some of the state counts are one-day statewide estimates; others are annual. Some rely on a sample, others on the universe, of shelter residents. Some states attempt to provide unduplicated counts; others do not. Purely in terms of the usefulness of the counts nationally, the net result is the worst of two worlds: for purposes of comparison, the numbers are suspect in the extreme; at the same time, some state coordinators report a fair amount of resentment among shelter operators of the burden imposed in collecting the data that are reported.

The CHAP is a required local planning document, the core of which is a community's strategy for matching the needs of the local homeless population with available, or proposed, facilities and services. Though the CHAP requirement does not mandate a local homeless population count, the document has been used as a pretext for conducting one. Most submissions contain an estimate, however rough, as a way of documenting local need. The extreme variability in the quality of the counts reported limits the value of these documents for national planning purposes, though HUD hopes to achieve some consistency in the estimates by requiring point-in-time counts. Whether the appropriate degree of consistency will be achieved without a required methodology as well is an open question. (HUD will recommend, but not require, counting methods.) What seems likely in any event, as with the Education counts, is that the collection of information on barriers to serving this population will advance local assistance efforts far more than having the right counts.

Program Evaluation and Congressional Reporting

By far the bulk of information needed, collected, and used by agencies is related to program outcomes: who is served, what is funded, how much is spent. Much of this data is required by Congress to enable legislative oversight for specific programs, and for the most part, their utility in general homeless assistance policy formulation is limited. Other data are collected through Congressionally-mandated or agency-sponsored program evaluations, which offer more promise as contributors to program and policy innovation.

Congressional reporting requirements rarely impose rigorous standards of data collection or analysis, thus limiting the value of what's submitted. Typical is the language that requires an annual report on the work of the Federal Emergency Management Adminstration. The FEMA requirement reads: "The National Board shall transmit to the Congress an annual report covering each year in which it conducts activities with funds made available under this title." In other words: tell us how you spent the money. Where counts of assisted clientele are provided, they rarely support estimates of outcomes nationally.

With each agency facing a different set of more or less imprecise reporting requirements, there are fairly predictable differences across programs in the level of reporting: better quality than average from categorical programs that fund discrete project types through competitive applicaton procedures; generally worse from programs funded through Block Grants allocated by formula. Because categorical programs usually restrict project types fairly narrowly, the type of clientele is restricted as well. For example, in HHS's Health Care for the Homeless program, local agencies can generate client counts by demographic, economic and diagnostic categories using a standard report format. Block grant recipients, in contrast, can fund a range of activities and projects and usually report at a more general level. No standard report formats are demanded by funding agencies, not least because of the wide disparity in the relative capacity of recipient agencies. Thus, for example, HHS's Emergency Community Services Homeless Assistance Grants simply require state aggregates of individuals, dollars, beds, and whatever other units of program measure are used locally.

Nevertheless, while the quantitative data produced is highly uneven and not very useful for analysis purposes, reporting requirements often produce useful qualitative, evaluative, information. As an example, and returning to the Department of Education's required state counts, the counts themselves are extremely unreliable. Far more useful appear to be efforts to identify barriers to serving the targeted population; attendence laws, school hours, transportation policies, records transfer practices, and so on. The accumulation of such information can lead directly to change in record-keeping and other procedures at the state level. These data also can be used to assess technical assistance needs on the part of local school districts.

As with congressional reports, the most useful evaluative data are usually collected from the categorical grants programs, more limited program objectives yielding a more manageable set of program success indicators. Perhaps typical of the formal evaluations are those of the Veterans Administration evaluations of both the Domiciliary Care for Homeless Veterans and the Homeless Chronically Mentally Ill Veterans programs, which contain both an implementation, or process, analysis and an analysis of program effects. Other agencies with rigorous evaluation efforts include the health agencies—NIAAA, NIMH Research Demonstration Program for Homeless Mentally Ill Adults and Families—the Department of Labor—Job Training for the Homeless—and HUD's Supportive Housing Demonstration Program, all programs with measureable outcomes.

Program Management

Finally, Federal agencies must collect routine program data to ensure proper funds management. These data are of limited use for policy making, though program evaluations often do make use of these data for sampling purposes. Typically, these data are not of high quality, with the possible exception of funds obligation and drawdown data from agency financial data systems.

Program management data, including counts of clients, beds, service units, and so one, are required by agencies to be reported directly by grant recipients, without intevening layers of data aggregation. In contrast to program evaluation data requirements, these data are limited, reflected the narrow purpose for their collection. The lower end of the quality range is represented by the FEMA requirements. Each of FEMA's almost 10,000 grantees must submit annual reports designed simply to allow the agency to verify program eligibility and allow a funds audit. There is no standard format in which to report the number of persons served, shelter provided, number of meals, and so on.

HUD requires rather more information of their grantees, which on average appear to be somewhat larger and more sophisticated than FEMA's recipients. HUD does provide a standard form, and requires a fairly detailed report of expenditures according to eligible project activities.

COORDINATED INTERAGENCY INFORMATION COLLECTION

Most, if not all, of these efforts have been initiated and continued in relative isolation: data respondents, units of measure, and data coverage are driven by agency-specific policy and program objectives. There are two general types of cost incurred by failure to think more broadly about the potential for more general information sharing, conceivably including coordinated data collection. First, agencies cut themselves off from potentially rich sources of insight about the potential effectiveness of their own programs if they ignore evaluative findings from programs with similar clientele. Second, agencies with shared grantees who serve this clientele know almost nothing about the delivery network for their programs if they do not share data on overlaping sources of support. In the latter instance, failure to coordinate collection also increases the cost of compliance to grantees to the degree that they tap multiple funding sources.

Thus, there are at least two potentially large areas of overlap across agencies in terms of information needs for policy development, program evaluation, and program management—overlap of grantees and overlap of clients. We still don't know enough about agency information needs and requirements to state for sure where these overlaps occur. Nevertheless, there appear to be several promising areas in which to start.

Because overlap of client is an easier area to address, I'll start there. There are several program evaluations currently being conducted for populations with special needs; those of Labor, NIMH, NIAAA, and Veterans, mentioned above. At the same time, HUD has the task of overall policy and program management for the Supportive Housing Demonstration, and the newly authorized Shelter-Plus-Care program. Both serve a clientele that is more thoroughly researched by these other agencies. In this instance, however, one suspects that formal arrangements for information sharing would not be appropriate given the episodic character of this type of information collection and analysis.

Far more promising in terms of client overlap are ongoing information systems that record characteristics of assisted populations—the American Housing Survey, for example, or the Survey of Income Program Participation. The Bureau of the Census and HUD are testing questions on previous episodes of homelessness for the American Housing Survey. Thus, beginning with the 1992 survey, we will have nationally representative data on prior homelessness among domiciled U.S. households, which puts us a far way toward developing national estimates of the at-risk population.

Overlap of grantees is a much more complicated issue. Three programs—HUD's Emergency Shelter Grants, FEMA's Emergency Food and Shelter Grants, and HHS's Emergency Community Services Block Grant—directly fund homeless shelter and services providers. (HUD's Supplemental Assistance to Facilities to Assist the Homeless also includes emergency service providers among its grantees.) Theoretically, a single homeless shelter could be a recipient of all three programs, but the degree of overlap among programs is impossible to estimate. All of these programs collect more or less the same information from their grantees, with varying degree of completeness: in FEMA's case the required information is minimal, though more complete data may be reported by some grantees. In HUD's case, the information is more extensive. In both cases, data are reported directly by recipient organizations to the end user, HUD or FEMA's fiscal agent. The HHS data, however, are reported first by organizations to states, which then aggregate these data for Federal reporting purposes.

If the overlap is small, then coordinated reporting, however desirable for analysis purposes at the national level, probably isn't worth the extraordinary effort required to achieve collaboration among agencies. Would this overlap remain small with the inclusion of other programs likely to fund homeless assistance through these providers? Both HUD's Community Development Block Grants, and HHS's Community Services Block Grants, potentially could fund these organizations. Unlikely as it may be, an organization could be faced with filing reports to five different agencies in any year. (That additional state- or locally-funded programs could be funded as well will be discussed in the next section.)

Now overlay onto the program reports, information that is requested locally for preparation of the CHAP or other local homeless policy planning document. Under current regulations, local recipients of Emergency Shelter Grant monies are required to file a CHAP that inventories facilities. As a rule, facility capacity is the core data element included in the inventory, but some communities add client counts, including unduplicated client counts, by characteristics (individuals, families, children, etc.) for each facility. Again, this is information that also will have to be submitted to Federal funders anyway. Is the CHAP the appropriate vehicle for coordinated collection?

In mid-November, 1990, The Urban Institute convened a meeting of agency representatives to discuss opportunities for shared collection of homeless information. Over the coming months, we intend to pursue this issue further. Among the questions to be addressed in projecting whether coordinated information collection is feasible are:

- How much would some form of combined reporting be expected to improve data quality; e.g., through consistent definition of data elements?
- What are the barriers to interagency coordination of data collection; e.g., the special concerns of human service agencies v. physical development agencies?
- How difficult will it be to combine local agency-level aggregate data required for some programs with project-level grant reporting data required for others?
- What kind of mechanism would be needed to collect data across agencies? How well can the CHAP perform this role? What kinds of institutionalized support would be needed to validate data?

If extraordinary effort is required to achieve data consistency—if this means counts or other mandated reporting—it must be backed by extraordinary claims for the potential gain. And the more abstract the objective, which practically, means general policy development rather than applied program evalaution, the more carefully such claims must be tested.

LOCAL PRACTICES AND DIFFICULTY OF COMPLIANCE

The discussion thus far has focused on cooperation among Federal agencies. Much of what the Federal agencies are able to collect, however, is dependent on other levels of government. The block grant programs are run through States or entitled local jurisdictions, so information is collected and reported accordingly. The same holds true for the data assembled and reported in the CHAP. Any Federal agency attempts to coordinate data collection necessarily will be affected by local willingness to comply.

Readiness to provide program information is both a fairness and a data quality issue. If local governments face extraordinary costs as a result of Federal information requirements, equity dictates that these costs somehow be compensated. (Though Federal agencies may argue, alternatively, that local government, including state governments, as a matter of course should collect certain kinds of information if they are to run programs intelligently.) Nevertheless, if data collection is burdensome, data quality will suffer. Grantees or local reporting agencies will only weakly attend to the validity and completeness of reported information once the cost of collection exceeds local standards of appropriateness.

Thus, feasibility of coordinated collection has local, as well as Federal dimensions, and these can be formulated in the same terms: are there substantial overlaps in data collection objectives? Are costs manageable? The added cost of coordinated data reporting, if any, is offset by correspondence between local and Federal data needs, but is aggravated by disjuncture.

Of course, the local costs of compliance would vary widely across localities, providers, and the types, frequency, and coverage of data to be collected. It is expected that the shared Federal information, if it implies coordinated data definitions and standards of data quality, almost certainly would imply shifts in local compliance burden. For some grantees, quite clearly, this shift would be downward, if they currently report to a number of funders. For others, the burden will increase, for example, if they currently do not report at all. Again, just as the feasibility of combined reporting at the Federal level depends on consistency of objectives across agencies, local ability to respond effectively to Federal requirements is tied to how well these requirements also serve state and local planning and management needs. If at all possible, Federal requirements should reinforce local efforts to obtain and use quality data.

We know that extensive overlap in some states is inevitable. A recent homeless assistance brochure put out by the State of Michigan, for example, lists some 18 Federal programs available in Michigan for assistance to the homeless, and 21 state programs. Some of the state program names are simply the state's label for the Federal funding program, also listed. How much reporting overlap this entails is not clear, though as programs proliferate, we suspect that the variety of reporting requirements placed on localities, and providers, will multiply as well. Some states have attempted to coordinate data collection for a range of grantees. The State of Texas, for example, attempted an interagency effort to collect information on the sheltered homeless population statewide. With four agencies involved in the effort, tradeoffs were inevitable, and likened by one agency official as "injuring four birds with one stone."

We are not, as yet, very far along in determining what the scope of local data collection is. We know from the CHAPs that HUD has reviewed that some communities currently collect data on their program clientele that would exceed any likely Federal requirement for estimating the population served. We also know that other communities do little. We clearly need to know more about the following:

- How well are local agency data and reporting integrated into state or local CHAPs? Is there any evidence that local agencies have attempted to coordinate data collection and local reporting efforts?

- Are there areas where Federal data collection efforts can be augmented to include data of use to state and local governments? Are there opportunities for special, ongoing, data collection efforts in selected states or localities that would contribute to Federal policy?

- Can we generally characterize the current practice of state and local counting efforts in terms of methodologies and instruments? How large are the differences in definition and technique of doing street counts, shelter counts, and estimates of those at imminent risk?

- Are there data collection alternatives that are more cost efficient, or correspond better to agency or provider internal tracking and reporting? For example, are there types of data that are more easily collectible, and can be made to proxy other, harder-to-collect, data?
- What are the capacity limits to efficient data collection practices for various categories of grantee? Are multiple collection methods and standards appropriate? How serious are the tradeoffs in data quality if standards are relaxed for various categories of respondent?

One suspects that there are data gathering and reporting models that would satisfy more than one consumer of information. For example, we know there are linked shelter networks in some communities that allow tracking of clientele across providers, allowing a fairly complete assessment of the local sheltered homeless population. We also suspect that over time, this kind of innovation will diffuse. Whether these models are good enough or diffusion will be rapid enough to support the kinds of broad information sharing for policy purposes as contemplated here is unclear. What does seem clear is that if this kind of data becomes readily available to Federal policy makers, it will be first because it is useful to local ones.

What to Look for in Studies That Try to Count the Homeless

Martha R. Burt
The Urban Institute

I have been given a fascinating task, to summarize for you a summary of seven summaries of seven extensive research projects. Should I miss anything, the accompanying "Overview of Seven Studies That Counted or Estimated Homeless Populations" should fill in the gaps.

Our intent in preparing this material was very pragmatic. If you are a person who *reads* reports of studies that tried to count the homeless, you can think of this as "how to read a report." That is, we have tried to highlight specific factors you should look for in evaluating the meaning of the count or estimate the report presents. And for those of you who *write* these reports, we would very much like you to take this presentation seriously as "how to write a report," meaning what information needs to be included so that your readers can make accurate and appropriate use of your study and its results. Even better would be to see people who are about to launch a new study using these guidelines to make conscious decisions about their methodologies so that the information they produce will be maximally useful to policy makers.

Purpose

Our purpose in compiling this summary was to understand the different methods used in studies that estimated or counted the homeless, and the effects of these methods on the counts that result. This is a useful and necessary exercise because there are far too many conflicting numbers and rates floating around. The lay public, policy makers and politicians do not know what to believe, and half the time we researchers don't know either.

A good part of the problem is the slipperiness of "truth" in this area. We do not have a simple, agreed-upon definition of homelessness. And as we go from the core of the concept to its periphery, there is less and less agreement about who should be counted and who should be left out. We do quite well at counting people in shelters, assuming we have some agreement on what types of facilities should be included as shelters. We do reasonably well at counting people who use other services, after adopting some criteria of who should be included as homeless. We do far less well at counting people who are not in shelters or using other homeless services—those on the streets, because they do not want to be found or finding them might be dangerous, and others, including the doubled-up, because we cannot agree on definitions.

The seven studies reviewed here all used some reasonably sophisticated way of counting the homeless—they can be considered "second generation" studies, after the initial very simple efforts undertaken earlier in the 1980s. They are: (1) Barrett Lee and the Nashville Coalition for the Homeless' repeated enumerations of Nashville's homeless, beginning in December 1983; (2) Rossi's 1985/1986 study of Chicago; (3) the Urban Institute's study of homeless users of soup kitchens and shelters in U.S. cities with populations of 100,000 or more; (4) the Rand Corporation's study of 3 California counties; (5) James' two studies of Colorado; (6) the Census Bureau's count of the homeless on S-night 1990; and (7) RTI's upcoming study of the homeless as part of the Washington DC Metropolitan Area Drug Study.

We tried to identify several major areas on which these studies differed, and note the consequences. The areas, summarized in the "overview," were:

- When the study was done
- Sources of data for the estimates
- Types of estimates made
- Screening procedures used (operational definition of homelessness)
- Locations (and therefore categories of people) included or excluded
- Methodological influences on under- and over estimates (stratification, search procedures, payment)

When the Study Was Done

Time of year—Most studies were done in the fall or winter, but James' was done in April, and RTI's will be done in February through May. It is hard to know what interpretation to put on different calendar months. Presumably people did studies in fall or winter because the concern for the homeless is highest then, or possibly because the assumption was made that anyone homeless in the winter truly did not have any other place to go. Yet it is not at all clear whether the numbers of homeless vary throughout the year, or whether different types of people are homeless at different seasons. At any rate, make note of the time of year when data were collected.

Year done—The earliest of these studies (Lee) was done in late 1983, and has been repeated semi-annually thereafter. Otherwise the earliest (Rossi) was done in fall 1985. To the extent that one believes it possible that the numbers of homeless people have increased over the decade of the 1980s, the year of the study is important. Presumably later studies will have higher numbers (or rates), if indeed the population has grown.

Time period of data collection—Two studies, Lee and the Census Bureau, collected all of their data on one night. Rand and James did their data collection in one week or less. Rossi's data collection periods were two weeks long, the Urban Institute's was five weeks long, and RTI's will be four months long.

The issue is: if a data collection period is longer than one night, the researchers must deal with the potential for duplicate counting, as it might affect the size of the estimate. The five studies that collected data over longer periods of time used one or more of the following approaches to unduplicating: obtaining individual identifiers, with subsequent search for duplicates and elimination of one set of responses; asking potential respondents if they had already been interviewed; finishing a single block, geographical area or facility in one night; obtaining service use and sleeping pattern data as part of the interview and statistically reducing the influence of those who had more than one opportunity to be selected.

If you are looking at a study in which data were collected over a relatively long period of time, and no effort has been made to unduplicate, you should expect that the study has produced an overestimate.

Sources of Data

No expert testimony—None of the studies reviewed relied on expert testimony for their estimates. The opinions of service providers and advocates are notoriously unreliable and inaccurate. Providers simply do not know how many homeless people are in the community beyond the group of people they serve, unless they are referring to a local study that produced relatively unbiased estimates. In that case, find the study and use its estimates, not those of the providers.

Enumeration (counts without interviews)—The Nashville studies were designed to enumerate homeless people without interviewing anyone, based on the expert judgment of the enumerators, who are all members of the Nashville Coalition for the Homeless. In two other studies, Rand's and the Census Bureau's S-Night, some people were counted without being interviewed. In the Rand study the people interviewed were a deliberate sample of the total population enumerated. On S-night, Census enumerators enumerated people without interviewing them when the people were asleep or judged incapable of being interviewed. Enumerations without interviews, or with only very short and limited interviews as in the case of the Census, may provide a count but usually provide little additional information about the homeless people observed. Their utility for service planning for selected segments of the homeless population is thus limited.

Probability sample with weighting—All of the other studies used some form of probability sample with weighting. The weighting, being the inverse of the probability of selection into the sample, provides the basis for developing an estimate of population size. Since it is very unlikely that anyone will successfully carry out a self-weighting study of the homeless (even if they design the study to be self-weighting), if you are looking at a study using probability methods and no weighting was done, ask why.

Types of Estimates Made

Point prevalence—"point prevalence" is the number of people who have a given condition at a particular point in time—in this case, homelessness. All of the studies reviewed gave point prevalence estimates—that is, they reported the number of homeless people they counted or estimated at the time of their data collection.

Other estimates—Many of the studies also used information obtained through interviews with homeless people to develop other estimates, all of which are based on extrapolations from a point prevalence estimate plus information on length of homelessness obtained through interviews. That is, these other estimates are not based on repeated measurements throughout a year's time period.

"Annual incidence" is the *number of people entering the state of homelessness during the year*. The studies that reported a figure for annual incidence usually developed that figure in the following way. They asked people how long they had been homeless. They then took the number of people who said they had been homeless for less than a month (that is, they became homeless within the month prior to the interview), and multiplied by 12, assuming the same number of people became homeless in each month of the year as became homeless in the month before the interviewing took place. The product (newly homeless in 1 month x 12) was reported as annual incidence.

"Annual prevalence" is the *number of people who have been homeless at some time during the year*. It includes two components—those who were already homeless at the beginning of the year, and those who became homeless during the year (the "annual incidence" described above). The studies that reported annual prevalence usually added their estimate of the currently homeless who had been homeless for more than one month to their estimate of annual incidence to create an annual prevalence figure.

When annual incidence and prevalence are estimated in the ways just described, they are very likely to be overestimates, because they rest on the assumption that people only enter the state of homelessness once during the year. Yet several studies that have attempted to follow homeless people over time report significant "revolving-door" experiences with homelessness, often within very short periods of time; other studies that have asked people about their histories of homelessness report that about half of the currently homeless have had prior episodes of homelessness.

Therefore one might take point prevalence estimates to be "lowerbound" estimates, as most research reports caution, because some number of the homeless are certain to have been missed by available enumeration or estimation methods. But one should probably look at annual incidence and prevalence estimates as "upper-bound" or at least "middle-range" estimates as they are calculated given the data available from existing studies, because they are not able to unduplicate for people who enter homelessness more than once during the year.

Screening Procedures

When reading a report of a homeless study, look for the procedures the researchers used to identify the homeless and separate them from the non-homeless. When writing a report, describe these procedures *fully*. These procedures are often not described clearly enough in written reports to make it possible for a reader to compare one study to another and know whether they counted the same types of people or not.

Two of the studies reviewed, Lee and the Census Bureau's S-night procedures, used no screener. Lee used the expert judgments of Coalition for the Homeless enumerators to identify the homeless. The Census Bureau took another tack entirely—they refused to define homelessness. Instead, they identified locations where homeless people were likely to be found, and counted people in those locations, excluding only those people "engaged in moneymaking activities" and people in uniform from these counts. Users of these data can make any argument they want as to who is homeless, and aggregate the counts from different locations. People will be able to use different definitions for different purposes. But they will have to make their inclusion/exclusion decisions explicit, and defensible to their audiences. In some ways this is the most flexible approach, since it allows the user to make the definitional decisions. It would be even more valuable had the enumeration included people sleeping in cars or other vehicles.

All of the remaining studies reviewed used screeners. Since Rossi was one of these and three of the remaining four (Urban Institute, RAND, RTI) adapted Rossi's screener with some modifications, it is not surprising that they look somewhat similar. They counted as homeless people who had no home or permanent place of their own to stay (meaning they rented or owned it themselves), and no regular arrangement to stay at someone else's place. RAND and RTI, which did street searches, also excluded from enumeration people "engaged in moneymaking activities," people in uniform, and people obviously carrying out their service jobs (e.g., janitors, paper delivery people). The Urban Institute did not do a street search, and had no exclusionary rule other than that implied by the screener.

All screeners proceeded with step-by-step questions that clarified most potential points of confusion (e.g., if someone said they had a place of their own, but that turned out to be a park bench or a bed in a shelter, they would be counted as homeless) before classifying someone as homeless or not homeless. None of the screeners asked people explicitly whether they considered themselves homeless. None of the studies validated their screeners— that is, the information given by respondents was not checked to determine its accuracy.

The studies by James used different screening methods. The 1988 study interviewed all people at souplines, and then separated the homeless from the non-homeless based on their interview responses to a question about having a permanent place of their own. If they said "no," or if they said "yes" but it was someone else's place, they did not contribute to the rent, and they used souplines, they were counted as homeless. In the 1990 study they were screened prior to interviewing, and included as homeless if they said they had no permanent place to stay (if they said they did have a permanent place, even if that place was a shelter they were not counted as homeless).

Locations (and Categories of People) Included or Excluded

Researchers often used screeners to exclude people outside the study's definition of homeless. Selection of search locations is another way of deciding which people will be included in or excluded from a count of the homeless. If you do not go to battered women's

shelters, to voucher hotels, or to conventional dwelling units, then battered women, homeless families staying in hotels on vouchers, and "doubled-up" situations for the precariously housed will be excluded from the homeless population. Some of the studies also contained some other exclusionary criteria. Locations or types of people may be excluded for several reasons—the most common are resource constraints (not searching low-probability blocks; not doing a street search) and differing takes on the broader reaches of a definition of the homeless (such as people in doubled-up situations, or people in treatment or criminal justice facilities).

Doubled-up—Of the studies reviewed here, none but James in the 1988 Colorado study attempted to include people in doubled-up situations. A recent Houston study not reviewed here (The Resource Group, 1989) is the *only* study I know of that attempted a systematic, probability-based approach to estimating the precariously housed doubled-up population. This study included a personal interview that obtained screener information, which the researchers used to separate the stable doubled-up from the precariously doubled-up.

Youth—Most of the studies reviewed either seriously undercounted youth (under 18 but on their own—i.e., not with a parent) or explicitly excluded them from the study. RAND was explicit in screening out anyone under 18; so was Rossi in the fall 1985 data collection period. Several studies did not include shelters designed to serve runaway or homeless youth in their sampling frame, although they may have encountered and interviewed some homeless youth in their street searches or interviews in other service sites.

Vehicles—The Census Bureau explicitly excluded people sleeping in vehicles from its counts. All other studies that used street searches *did* count people sleeping in vehicles. The Urban Institute study included some people who slept in vehicles, if they also used soup kitchens or periodically used shelters.

Voucher programs—Several studies did not include voucher hotels or motels in their sampling frame of shelters, even though the study locations included programs that paid for hotels or motels for homeless people.

Battered women's programs—Most studies included battered women's shelters in their homeless shelter sampling frame; Rossi did not although there were such facilities in Chicago; RAND did not because there were no such facilities in their counties.

Residential treatment or criminal justice facilities—only two studies, Lee and RTI, included people in these types of facilities. They used a screener to separate those who did not have a usual home elsewhere (the homeless) from those who did.

Geographical areas of city—Some studies did not search low-probability blocks (RAND), or most locations beyond the downtown area (Lee), or locations not pre-identified as places where one would be likely to find homeless people (Census, James). The Urban Institute study did not do a street search at all.

People not using services—The Urban Institute study included homeless people who used soup kitchens and shelters, but did not do a probability-based street search, and no non-service users are included in the estimate based on the weighted survey results. James also based much of his Colorado methodology on service users only. Where he did *not*, in one component of his estimate where he develops a number for non-service users, I believe his methodology is incorrect. He bases his estimate of this component on a finding about the proportion of people he interviewed on the streets who reported that they did not use services—but he does not appear to have a defensible way to get from that proportion to the size of the non-service-user universe.

The reader needs to be careful in comparing studies because these "omitted categories" are not mutually exclusive, and there is an undetermined, and probably undeterminable, amount of overlap across studies. For instance, the Urban Institute study included people who used soup

kitchens but did not use shelters (29 percent of the sample). They slept in all the places usually thought of as "street" locations. Thus the Urban Institute study included people sleeping in parks, cars, bus stations, tents, highway tunnels, etc. *if they used soup kitchens*, but not if they didn't. It is impossible to tell precisely what proportion of the street population (i.e., non-shelter users) was thus included in the Urban Institute estimate, but it would certainly be more than in a study that only went to shelters.

Methodological Influences

Stratification—Rossi, RAND and Dennis/RTI used a method for determining the size of the non-sheltered homeless population that stratifies city blocks by the probability of finding homeless people in them, and then uses different sampling fractions to sample high, medium and low probability blocks. The studies' estimates are highly dependent on useful definitions and accurate identification of high, medium and low probability blocks. Even among these three studies, high, medium and low were defined differently, and different strategies were followed for sampling from the strata. RAND did not go to low probability blocks ("zero tracts") at all, although they did do a validity check of this decision, and found one or two homeless people in these zero tracts. Rossi and RTI went/will go to blocks in all three strata, but RTI will commit more of its resources to the high probability blocks, whereas the resources in the Rossi study were more evenly distributed. One of the consequences of including more low-probability blocks is a lower rate of encountering homeless people. Rossi's study identified only 1 homeless person out of 10 people screened on the streets, compared to a 1-to-2 ratio for most other studies, that concentrated more on high-probability locations.

In any sample, sampling error increases when few selected cases represent a large stratum. Low-probability blocks are the largest stratum in these three studies; it is a judgment call how many blocks are "enough" to represent the stratum. That judgment call will be influenced by available resources—thus RAND decided not to go to zero tracts at all, rather than to use limited resources on searching tracts likely to have very low payoff. In the Urban Institute study, small cities (those between 100,000 and 250,000) were the biggest stratum (116 of the 178 cities over 100,000), but were represented by only 5 cities in the final sample of 20, due to resource constraints. The consequence was that the estimates of the size of the homeless population in small cities had much more sampling error than estimates for strata of larger cities. A repeat of this study would produce a better estimate if it expanded the sample size to 30 cities and put all of the extra 10 into the small city stratum.

Search Procedures—The procedures used to find homeless people during street enumerations will influence the number of people found, and therefore the estimate of the size of the homeless population. The searchers' diligence, fearlessness, knowledge, thoroughness, commitment, and conviction of the importance of finding people will all influence the results. More of all these things will produce higher estimates. Other search procedure influences are the degree to which interviewers operate on stereotypes rather than inquiry (e.g., skipping people who do not "look" homeless, even when their instructions are to screen everyone), and rules for skipping (e.g., "engaged in money-making activities," in uniform, providing services). Also, the structure of the search may affect diligence, fearlessness, etc. When people go out in teams of several people each, they may be more fearless, diligent and thorough than if they are in teams of two, each of whom may be conducting an interview at the same time, thus leaving each open to possible trouble.

Payment—There is little question that paying respondents increases response rates. All of the studies reviewed here that required personal interviews with the homeless paid people to complete the interviews, with the exception of the Census Bureau's S-night. As a consequence, the Census Bureau got turned down more often. Individuals who refused to complete Census interviews were still counted, and minimal demographic data were recorded for them (e.g., sex, race, approximate age), but no other information could be obtained. Lee did not pay people, since the Nashville studies did not conduct interviews, and had little or no direct contact with the people enumerated.

Conclusion

Users of research are urged to take great care in drawing inferences, generalizing, and comparing across studies. Producers of research and research reports are urged to think carefully when designing a study about all the issues discussed above, and to describe your procedures in detail. It is not enough to say "a screener was used." We need to know what the inclusion and exclusion criteria were. This will make your work most useful to other researchers, planners and policy makers.

No one has done the perfect study of homelessness, and no one is likely to do so. Both resource constraints and the slipperiness of the definition of homelessness (and its different meanings in different policy contexts) make this prediction almost certain. Therefore, we can do ourselves and the consumers of our research a favor if we accept these two facts and act *reasonably* in our production and use of information about homelessness and homeless people.

References

Burt, Martha R. and Cohen, Barbara E. *Feeding the Homeless: Does the Prepared Meals Provision Help?* Volumes I and II. Washington, DC: The Urban Institute, 1988.

Dennis, Michael L., Iachan, Ronaldo, Thornberry, Jutta S., and Bray, Robert M. *The DC Metropolitan Drug Study (DC*MADS): Homeless and Transient Population Study*. Research Triangle Park, NC: Research Triangle Institute, 1990.

James, Franklin. *Numbers and Characteristics of the Homeless: A Preliminary Application in Colorado of a New Methodology*. Denver, CO: University of Colorado at Denver, Graduate School of Public Affairs, 1988.

Lee, Barrett. "Stability and Change in an Urban Homeless Population." *Demography*, 1989, *26(2)*, 323334.

Rossi, Peter H., Fisher, Gene A. and Willis, Georgianna. *The Condition of the Homeless in Chicago: A Report Based on Surveys Conducted in 1985 and 1986*. Chicago, IL: Social and Demographic Research Institute, University of Massachusetts-Amherst and National Opinion Research Center, Chicago, 1986.

Taeuber, Cynthia M. and Siegel, Paul M. *Counting the Nation's Homeless Population in the 1990 Census*. Washington, DC: U.S. Bureau of the Census, Population Divison, 1990.

Vernez, Georges, Burnam, M. Audrey, McGlynn, Elizabeth A. Trude, Sally and Mittman, Brian. *Review of California's Program for the Homeless Mentally Disabled*. Santa Monica, CA: The RAND Corporation, 1988.

Overview of Seven Studies That Counted or Estimated Homeless Populations

Martha R. Burt
The Urban Institute
Cynthia M. Taeuber
Bureau of the Census

TABLE OF CONTENTS

1. Overview 31
2. Grid Questions 35
3. Nashville Enumeration Project (Lee) 38
4. Chicago Study (Rossi) 40
5. Urban Institute 1987 Study (Burt) 42
6. The RAND Corporation's 1987 Survey of Homeless in 3 California Counties (Burnam) 52
7. Research on Homelessness in Colorado (James) 57
8. U.S. Bureau of the Census—S-Night Enumeration (Clark) 62
9. DC*MADS Homeless and Transient Population Study (Dennis) 68

OVERVIEW

This overview provides a shorthand comparison of seven studies that counted the homeless or developed estimates of the size of the homeless population. The studies were chosen as examples of the various methods used to count homeless persons during the late 1980s and 1990. The information in this overview was derived from researcher responses to a series of questions about their studies. The questions (referred to as the "Grid") and their responses are included here.

Several key points of comparison were selected, including: Who did the study; where and when the study was done; the length of the data collection period, sources of data for estimates, and types of estimates or counts produced; what types of people are included or excluded from the counts/ estimates; and the likely sources of under- or overcounting.

WHO DID THE STUDY (PI, area covered, organizational auspices)

1. **Barrett Lee/Nashville**—Nashville Coalition for the Homeless
2. **Peter Rossi/Chicago**—University of Massachusetts Social and Demographic Research Institute
3. **Martha Burt/Urban United States**—Urban Institute
4. **Georges Vernez/3 California Counties**—The RAND Corporation
5. **Franklin James/Colorado**—Colorado Coalition for the Homeless (1988 study), Colorado Governor's Coordinating Council for Housing and the Homeless (1990 study)
6. **Census Bureau/United States**—Census Bureau
7. **Michael Dennis/Washington DC MSA**—Research Triangle Institute (RTI)

YEAR AND TIME PERIOD OF DATA COLLECTION

1. **Barrett Lee/Nashville**—single night, in late December 1983, 1985, 1986,1987, 1988, 1989; and in late June 1984, 1986, 1987, 1988, 1989 and 1990.
2. **Peter Rossi/Chicago**—two weeks each, in September 1985 and February 1986.
3. **Martha Burt/Urban United States**—five weeks beginning March 1, 1987.
4. **Georges Vernez/3 California Counties**—Orange County, week of September 15,1987; Yolo County, week of October 19, 1987; Alameda County, week of October 25, 1987 and a second enumeration without survey in week of January 11, 1988.
5. **Franklin James/Colorado**—about a week each, in early and late April, 1988; mid-April 1990.
6. **Census Bureau/United States**—late night of March 20 and early morning of March 21, 1990.
7. **Michael Dennis/Washington DC MSA**—64 randomly sampled nights/mornings between February and May 1991.

SOURCES OF DATA FOR ESTIMATES

1. **Barrett Lee/Nashville**—*Count/enumeration*. Counts of "street" people observed and believed to be homeless by researchers (members of the Nashville Coalition for the Homeless, in 5-8 teams) plus enumeration of people in shelters, missions, transient SRO rooms and other facilities based on provider information. No direct contact with the homeless people enumerated.

2. **Peter Rossi/Chicago**—*Estimates from probability sample*. Shelter sample: shelters sampled proportional to capacity, residents sampled randomly from rosters; street sample: city blocks sampled proportional to their probability of containing homeless people, respondents selected by screening all persons encountered for homelessness, then interviewing all who said they were homeless.

3. **Martha Burt/Urban United States**—*Estimates from probability sample*. Service user sample: cities selected proportional to size of their poverty population within region/size strata from universe of all cities over 100,000 in 1984; shelters and soup kitchens selected proportional to capacity within size/type strata from complete list of facilities within city limits; respondents selected randomly from shelter or soup kitchen users.

4. **Georges Vernez/3 California Counties**— *Count/enumeration* for shelters (with accompanying sampling for interviews); *estimates based on counts for sampled blocks*, for streets. Shelters: enumeration of residents of all shelters in each county on a typical night, obtained from shelter providers. Street population: multi-stage sampling, first selecting census tracts, then census blocks (stratified according to probability of finding homeless persons), then screened all individuals encountered, counted and interviewed homeless ones.

5. **Franklin James/Colorado**—*Estimates from probability samples*.

6. **Census Bureau/United States**— *Count/enumeration*. Emergency shelter and street locations in the United States identified by national administrative records and local informants as containing homeless people. Selected other components identified in regular census operations.

7. **Michael Dennis/Washington DC MSA**—*Estimates from probability samples*. Time sample: 4 randomly sampled days per week. Shelter sample: shelters sampled proportional to average capacity and clients systematically sampled from intake roster for entire night. Street sample: census tracts sampled proportional to the expected density of homeless people, then census blocks sampled proportional to expected density of homeless people, then interviewing everyone encountered on those blocks who is screened in as homeless.

TYPE OF ESTIMATE(S) MADE AND REPORTED

("Point prevalence" is number of people homeless on a given night. "Annual incidence" is number of people becoming homeless in given year. "Annual prevalence" is the sum of those who became homeless during the year (annual incidence) plus those people who were already homeless at the beginning of the year.)

1. **Barrett Lee/Nashville**—Point prevalence at intervals over 7 years (so far).

2. **Peter Rossi/Chicago**—Point prevalence, annual incidence, annual prevalence.

3. **Martha Burt/Urban United States**—Point prevalence, seven-day prevalence, annual incidence, annual prevalence.

4. **Georges Vernez/3 California Counties**—Point prevalence, annual incidence, annual prevalence.

5. **Franklin James/Colorado**—Point prevalence.

6. **Census Bureau/United States**—Point prevalence.

7. **Michael Dennis/Washington DC MSA**—Planned estimates: 30 day, 12 month and lifetime prevalence, annual incidence, and estimates from capture-recapture methodology. Lifetime and annual prevalence also estimated from other population samples from prisons, schools, nursing homes, hospitals, jails and group quarters.

SCREENING PROCEDURES

(All studies assumed shelter residents were homeless. Screening procedures apply only to street or soupline situations.)

1. **Barrett Lee/Nashville**—no screener, relied on enumerator judgment.
2. **Peter Rossi/Chicago**—resident of Cook County, did not rent or own conventional dwelling and had no free access to one.
3. **Martha Burt/Urban United States**—did not have "own place" (house, apartment or room paid for by self or own family) or a regular arrangement (5 or more days a week) to stay at someone else's place.
4. **Georges Vernez/3 California Counties**—no one under 18; did not have own place or regular access to someone else's place.
5. **Franklin James/Colorado**—1988: no screener at data collection time; homeless people identified in analysis if 1) said they had no permanent place of their own; 2) said they had permanent place but it was not their own, *and* they used shelters or souplines. 1990: screened out if said they had permanent place to stay (even if that place was a shelter); otherwise, considered homeless.
6. **Census Bureau/United States**—no screener, excluded anyone in uniform or engaged in money-making activities.
7. **Michael Dennis/Washington DC MSA**—did not have own place or regular access to someone else's place; includes people who are moving from place to place or are trading sex for shelter; excludes persons engaged in illegal activities (e.g., prostitutes, drug dealers, people breaking and entering) or people providing services (e.g., police, taxi drivers, delivery people, building maintenance people).

CATEGORIES OF PEOPLE COUNTED AS HOMELESS/ POSSIBLE UNDER- OR OVERESTIMATES DUE TO CATEGORIES

See Table 1 for types of people included in count/estimate. Of these studies only one, that by James for Colorado, attempted to estimate the numbers of people who would be considered both "homeless" and "living with family or friends." The 1990 Census will provide an enumeration of households in conventional dwelling units that contain subfamilies or unrelated individuals, but the Census Bureau does not provide a definition of "homeless" for people in this situation.

1. **Barrett Lee/Nashville**—people not included: some "street" people outside the downtown area; people doubled up in conventional dwelling units.
2. **Peter Rossi/Chicago**—people not included: people in battered women's or runaway/homeless youth centers; people in nonhomeless residential settings such as jails, mental health facilities.
3. **Martha Burt/Urban United States**—people not included: anyone not using soup kitchens or shelters in cities over 100,000; anyone living in places of less than 100,000 population; homeless youth; people in conventional dwelling units unless they use soup kitchens and do not have a regular arrangement to sleep in the unit; people in non-homeless residential settings such as jails, mental health facilities.
4. **Georges Vernez/3 California Counties**—people not included: people not literally homeless (in shelters or "on streets") such as those in SROs, staying with friends, institutionalized, etc.; people in "zero tracts," those census tracts that were not sampled because key informants estimated they contained no homeless—if they did, then these people were not counted; people staying in battered women's shelters; people staying in shelters specifically for youth were not included because no facilities of these types existed in the areas studied, not because they were excluded from the sampling frame.
5. **Franklin James/Colorado**—people not included: homeless youth; adult homeless not using homeless services, such as people in SROs, crash pads, homes of family or friends (if they do not use souplines).

6. **Census Bureau/United States**—people not included in S-night count: people sleeping in vehicles; people in shelters or street sites not identified to the Census Bureau prior to S-night; people in abandoned buildings unless they came out and were counted while the enumerators were stationed outside the building in the early morning hours (4am - 8am); homeless in institutional residential settings such as jails, mental health facilities (although people in these settings were enumerated on April 1 in the regular census, they are not separately identified as "homeless" and no information will indicate whether they have a regular home elsewhere).
7. **Michael Dennis/Washington DC MSA**—because of the parallel surveys of jails, mental institutions, chemical dependency treatment facilities and conventional dwelling units that are part of the overall DC*MADS study, all of the shelter, residential and street locations are included as long as they are in the DC MSA.

METHODOLOGICAL INFLUENCES ON UNDER- OR OVERESTIMATES (including stratification, search procedures, payment)

1. **Barrett Lee/Nashville**—under-representation of blocks outside the downtown area; use of observation to count, but no actual contact or screening of respondents may have resulted in missing some homeless people who do not look typically homeless, or may have included some people who do "look homeless" but are not. No payment.
2. **Peter Rossi/Chicago**—stratification plan for prioritizing and selecting blocks led to missing most of the blocks that had a virtually certain probability of finding many homeless (called "super-blocks" by Rossi), including blocks where homeless people were very unlikely to be encountered, and a very low rate of finding homeless people among the people screened (1 in 10 compared to approximately 1 in 2 for many other studies). Paid $1 for screener and additional $4 for completed interview. Rossi's experience led other studies based on his method (Vernez, Dennis) to modify their stratification and sampling plan.
3. **Martha Burt/Urban United States**—because no systematic probability street sample was attempted, the study missed all street people who did not use a soup kitchen or a shelter during the study period. It also did not go to cities with populations lower than 100,000, or to non-MSA areas. Paid $5 for completed interview.
4. **Georges Vernez/3 California Counties**—Stratified blocks by high, medium, low and zero expectations of finding homeless, based on information from providers, homeless people and other key informants; only went to high, medium and low blocks. Actually did second street enumeration in different blocks in Alameda County because found that designation of low and zero blocks was faulty; found 200 homeless people in these new blocks in addition to the 295 homeless identified in the first enumeration. Paid $1 for screener and additional $3 for completed interview.
5. **Franklin James/Colorado**—used no formal block stratification plan. Used knowledgeable people from Coalition for the Homeless to identify places where homeless people were known to sleep. Interviewers/enumerators went to these locations, counted and interviewed everyone they found. Did not try to assess existence of homeless persons in locations not pre-identified.
6. **Census Bureau/United States**—went to pre-identified locations only, so missed homeless not at those locations, and were dependent on the cooperation of local informants to accurately identify non-shelter locations where homeless would be found (supplemented local information with national lists for shelters). Jurisdictions with a population of less than 50,000 that did not provide any information were not included in S-night. No one sleeping in vehicles was counted. Enumerators did not go into abandoned buildings, but attempted to count people as they came out in the morning, which would result in an undercount of such persons. Adults and children were enumerated separately, not as family units; tabulations will be shown for "adults with children" based on computer links. Supposed to interview everyone who was awake; record basic information by observation if not awake or if unwilling to answer questions. No payment.

7. **Michael Dennis/Washington DC MSA**—Stratification procedures are designed to oversample census blocks with a high expected density of homeless people (based on municipal and local expert opinion). People who have been homeless or who have worked with homeless people will be used as interviewers to insure sensitivity and to identify people who are hiding. All people spending a night in emergency shelters and in open spaces between 4-6am have a known and non-zero probability of being sampled. Will pay $10 for completed interviews.

GRID QUESTIONS

Basics

A. When was the study done (year, month)?

B. Who did the study?
Principal Investigator/Director?
Organizational Auspices?
Were interviews contracted out to a survey research organization? If so, which one?

C. What were the study's purposes; why was it undertaken?

D. Who conducted the actual interviews (e.g., homeless people, social services staff, trained interviewers hired by a survey research organization, etc.)? Did they do the interviews in pairs/groups, or alone?

E. What kind of training did interviewers receive? How long did it last? Did it include practice interviews? At sites similar to those to be encountered in the survey itself?

F. What geographical areas were covered (which cities, counties, states)?

G. What was the time period of data collection (one night, over a week's time, over a month's time, what)? How does the time period of data collection relate to the time period the estimate covers (e.g., 1-night or 7-day estimate)? Was it intended as a cross-sectional or longitudinal survey?

Sampling Frame—Locations

A. What locations were included?

Overnight/residential institutions

Shelter-type institutions (shelters, domestic violence shelters, subsidized temporary hotel/motel/apartment, e.g., voucher programs, but not permanent subsidized housing such as Section 8, and runaway and homeless youth centers)

Non-shelter institutions (e.g., jails, mental health facilities, detoxification centers, quarter-way, half-way and three-quarters-way houses)

Gray-area institutions—

Are Single Room Occupancy (SRO) and hotel rooms *paid for with the occupant's own resources* included (such as YWCA rooms, residential hotels with long-term occupants)?

Are transitional and permanent housing projects including group homes, SROs, apartments or other arrangements that serve the once-homeless included?

Are long-standing institutions for people displaced by emergency situations included, such as facilities for abused and neglected children removed from their homes, or "quickie" arrangements for San Francisco's earthquake victims included?

What about hospitals housing "boarder babies"?

Non-residential institutions
Soup kitchens, mobile food vans, drop-in centers, health clinics (others?)

Non-institutional locations
For example, streets, parks, transportation depots, abandoned buildings, parked cars, parts of highway or public transportation systems, parking garages, railroad boxcars. Or, geographical designators, such as blocks?

Conventional dwelling units
To identify and count the "doubled-up" population, however defined.

B. How was sampling frame developed, and its completeness and accuracy (about estimates of size) determined?

C. How was selection made from units in sampling frame?

D. What are the biases present in the study's choice of research sites? (i.e., what parts of the homeless population are probably excluded?)

E. Was any attempt made to oversample any population (e.g., women, minority populations)?

Sampling—Respondent Selection

A. How were individuals selected at each site?

Randomization issues (take all, fixed skip interval, number interviewed dependent on size of facility/location, etc., etc.)

Screening procedures (what criteria were used, if any to determine that a potential respondent was really homeless? Was a potential respondent's financial contribution a criterion—e.g., if a respondent paid for a hotel room with own resources, or contributed to the rent in a doubled-up situation, was s/he counted as homeless? What characteristics would have *excluded* a potential respondent from the study as not homeless?)

Were the screening procedures validated in any way to assure they selected truly homeless people and *excluded* truly non-homeless people?

B. How were respondents approached? Who was present (interviewer? escort? what type—off-duty police, homeless person, staff of shelter or other agency where interviewing was occurring)?

C. How was the research explained?

D. Were respondents paid? How much? How was this explained?

E. Did screening or interviewing occur within the hearing of other homeless people, facility staff, or someone else? If yes, how might this have affected either agreement to participate in the study or answers to particular questions?

Finding the "Hidden Homeless"

One purpose in doing this review of counting methologies is to understand which homeless people are included, and which are excluded, by particular methodological approaches. In filling out this grid, consider the hidden homeless to be anyone who cannot be found by surveying the users of shelter-type institutions (see Sampling Frame—Locations—A for types of facilities in this category). The hidden homeless, by this criterion, would include homeless people who use soup kitchens but not shelters; who use health care services but not shelters; who use no services but sleep in the park; people permanently or semi-permanently "camping out" in campgrounds, caves, "squatting" in abandoned buildings; sleeping in cars, vans, trucks or abandoned vehicles; "doubled-up" on an emergency basis in other people's homes, or in outbuildings such as chicken coops, barns or shacks in rural areas; some people in treatment or correctional institutions; people sleeping in all-night movies, laundromats, under the bar after closing time; and so on.

Study methodologies may make no attempt to locate or interview the hidden homeless; most studies have made some attempt to include some part of this population, using a strategy that combines selection of sites and selection of individuals. Please describe what part, if any, of the non-sheltered homeless population *your* study tried to reach, and how *your* study did so.

Weighting and Estimation Procedures

A. Were any used? If not, why not?

B. Describe those used. Please include mathematical expressions/formulae.

C. Were any **CORRECTIONS** made for possible duplicate counting due to: (1) use of more than one type of facility (e.g., soup kitchen and shelter, shelter and health); (2) use of more than one facility of a type (e.g., eats at two different soup kitchens in a day); (3) use of one or more types of facilities although found and interviewed "on the street." Describe them, and their effects on the final count, if possible. If not, *could* you make these corrections (did your procedures yield the information to make such corrections)?

D. Were any **CORRECTIONS** made for non-response, of facilities (refusal to allow clients to be interviewed) or individuals. Describe them, and their effects on the final count. If not, *could* you make these corrections (did your procedures yield the information to make such corrections)?

E. Was any adjustment made for frequency of use over a period of more than one day (e.g., the Urban Institute's 7-day adjustment). Describe the adjustment and its effect on the final count. If not, *could* you make these adjustments (did your procedures yield the information to make such adjustments)?

F. Did you make any other adjustments or corrections? Please describe.

G. What are the probable effects of weighting procedures, corrections and adjustments on the proportion of the homeless likely to be included in the final estimates?

H. How were accompanying children dealt with, in the interviews/data collection and in the counts?

I. To what universe, if any, is sample generalizable? What population or subpopulations are estimated? Could standard errors be computed? Were they computed, or was any other estimation of variance computed? What were the results?

J. Please describe any special estimating techniques, if you used them (such as capture-recapture).

NASHVILLE ENUMERATION PROJECT

responses prepared by Barrett Lee

Basics

A. Beginning in December 1983, enumerations have been conducted twice a year, on or about June 20 and December 20. (There are two exceptions to this rule: no enumerations were conducted in December 1984 or June 1985.) Through June 1990, 12 enumerations have been completed.

B. Organizational sponsorship is provided by the Nashville Coalition for the Homeless (NCH), an umbrella organization comprised of approximately 60 public- and private-sector serviceproviding agencies. Barrett Lee, formerly of Vanderbilt University, directed the enumeration project during its first four years and remained an active participant through the December 1989 count. In recent years, a full-time NCH staff member has assumed the role of director.

C. The reason for conducting the first enumeration was to produce descriptive demographic data that could be used in support of a grant proposal to improve the quality of local health-care facilities and services for the homeless. Since that time, NCH's desire to obtain up-to-date information on the size and composition of the homeless population has been the principal motivation.

D. Enumerations are conducted on a volunteer basis by NCH members, many of them street-level service providers in "real life." Five to eight teams, consisting of two to four persons each, carry out the street portion of the count, while five other people contact informants at shelters, missions, and similar facilities. (Most of the informants are also NCH members.) Altogether, 40-50 individuals are involved in data collection activities per enumeration. Formerly homeless persons have served as guides to the street count teams a couple of times, with no appreciable effect on the results.

E. A 90-minute training session and organizational meeting is held before each enumeration. Originally, these sessions were longer, but most volunteers for recent enumerations have been veterans of earlier ones. Members of the street count teams are reminded about acceptable visual cues (used in determining if someone is homeless), procedures to minimize double counting (see below), safety measures, and bureaucratic details (such as how to fill out the enumeration form correctly). No instruction is given in interviewing techniques since the enumerators rely exclusively on direct observations, taken in as unobtrusive a manner as possible.

F. Nashville, Tennessee.

G. Each enumeration is conducted during the time period to which its estimates of population size and composition pertain: a single night in June or December. The street count takes place between 3:30 and 5:30 AM, and the tallies kept by shelter informants refer to the same night. In short, the design of the enumeration yields "snapshots" or point estimates rather than cumulative totals.

Sampling Frame—Locations

A. The enumerations cover shelters and missions for the homeless, domestic violence centers, youth centers, vouchered motel rooms, jails, detoxification programs, mental health facilities, and transient rooms in SRO hotels. All manner of outdoor and noninstitutional sleeping sites in a 180-block downtown area are also included; this is the study zone scoured by the street count teams. One team is usually assigned to sites falling outside the downtown area but occasionally occupied by the homeless, such as abandoned buildings

on Music Row, hospital waiting rooms, and some of the city's larger parks. *Excluded* from coverage are soup kitchens and other non-residential institutions (which have many non-homeless clients) and conventional dwelling units.

B. Informant reports and field methods were used to set the boundaries of the downtown study zone, which continues to have the highest concentration of homeless people in the city. The list of institutional settings and of sites outside the study zone is periodically updated by NCH members, service providers, the police, and other informants.

C., E. Not applicable; enumeration (complete count) rather than sample survey design.

D. Homeless persons in noninstitutional sites outside the downtown study zone are probably undercounted, and those staying temporarily with friends or relatives (the "doubled up") are missed completely.

Sampling—Respondent Selection

A. Except in rare instances, no verbal contact is made with enumeration subjects. (Many are sleeping when they are counted.) Enumerators decide if a person in a noninstitutional location is homeless on the basis of visual cues (bundled belongings, illfitting clothing, weathered facial appearance, etc.) and personal knowledge (if the person is recognized by one of the enumerators as a social service client, periodic shelter dweller, etc.). Informants at institutional settings with mixed clienteles are instructed to count only those people who would be without a place to live if discharged the next day.

B. Typically, two members of a street count team move close enough to a subject to be able to observe his/her sex, race, and approximate age (coded in three categories). The policy followed throughout the life of the project has been *not* to enlist the assistance of security personnel or to permit interested parties (e.g., the media) to accompany enumerators.

C., D., E. Not applicable.

Finding the Hidden Homeless

The street count portion of each enumeration focuses on homeless people sleeping outdoors and in shanties (along the riverbank), automobiles, railroad boxcars, abandoned buildings, alleys, bus depots, all-night coffee shops, hospital waiting rooms, the jail (drunk tank), parks, and public office buildings (post office lobby, courthouse, etc.). This effort is confined primarily to the downtown study zone.

Weighting and Estimation Procedures

A., B. Not applicable.

C. The following steps have been taken to minimize the risk of double counting or to correct for its occurrence: 1) the enumeration covers a nighttime period, when the homeless population is relatively immobile, 2) the street count is conducted in the early morning hours, before clients are permitted to leave shelters and other institutional settings, 3) street count teams are assigned to separate, non-overlapping geographic districts, 4) the time and place of each observation taken during the street count (as well as the demographic characteristics of the person(s) observed) are recorded on an enumeration form, and 5) the information from all such forms is later compared to determine if anyone has been counted in two or more districts; if so, appropriate deductions are made.

D., E., F., G., J. Not applicable.

H. Children have been included in every enumeration.

I. The goal of the enumeration project—although never fully achieved—is to count the total population of homeless people in Nashville. Results are presented as lower-bound estimates, with explicit recognition that "doubled-up" individuals and some outdoor sleepers (especially those outside the downtown study zone) have been omitted. The data can be broken down by sex, race, age, and location.

1985/1986 CHICAGO STUDY

responses prepared by Peter Rossi

Basics

A. Study was undertaken over the period June 1985 through August 1986. Field work took place at two points: September 1985 and February 1986, each being a separate survey.

B. PI was Peter H. Rossi, Co-PI was Gene A. Fisher. Grants were received from Robert Wood Johnson Foundation, Pew Memorial Trust and the Illinois Dept of Public Aid. The first 2 grants were given to UMass, SADRI, and the third to NORC. Subcontract for data collection given to NORC.

C. Purpose of the study was to test out methods for estimating the size and composition of the homeless population of urban areas. The hope was that a method could be devised which could be used in each of the cities in which the foundations had established medical clinics for the homeless in order to establish the extent to which those clinics were reaching their target populations.

D. Interviews conducted by interviewers hired and trained by NORC. Pairs of interviewers accompanied by off-duty policemen.

E. Training accomplished by NORC. I believe each interviewer participated in a training session lasting a few days. Contact Sarah Be and Mary Utne O'Brien for details on training.

F. The survey covered the city of Chicago.

G. Each of the surveys was conducted over a two week period, each day's operation was a sub-sample of the total sample. Interviewers alternated between shelter sample and street sample, the former taking place after the shelter had filled up (usually around 10 PM). Street samples were undertaken between 1 AM and 6 AM.

Sampling Frame

A. Each survey consisted of two complementary samples:

1. Shelter sample: Exhaustive list of shelters were sampled with probability proportionate to shelter capacity. Within sampled shelters, rosters of residents were obtained and names sampled systematically. Specialized shelters — detox, battered women, juveniles, excluded from shelter universe. No jails, hospitals, etc. included. No SROs included.

2. Block sample: Census blocks for Chicago stratified by expected number of homeless to be found on the block, based on information furnished by police precinct community relations officers. Density strata sampled with ratios

proportionate to expected homeless density. On blocks so chosen, interviewers systematically swept all places on blocks interviewing all persons encountered, screening for homelessness and interviewing all positives. Interviewers were to enter each structure on the block, stopping only when confronted by locked door.

B. Shelter sampling frame developed with welfare agencies, advocate groups, and using snowball. Final list circulated among knowledgeable persons for correction.

Block stratification accomplished by police given maps of their precincts and asked to classify all blocks into three density strata.

C. Random selection of shelters and blocks within strata.

D. Biases depend on what you consider to be the proper definition of homelessness. Our sample did not cover persons doubled up, in SROs or other inexpensive housing, in jails, mental institutions, etc. It did cover persons sleeping in cars, abandoned buildings, boxcars, etc as long as interviewers could enter the places in question.

E. No oversampling.

Respondent Selection

A. Shelter respondents selected systematically from rosters.

Street respondent selected by screening all persons encountered with persons designated as homeless if on that evening they did not rent or own a conventional dwelling unit or had free access to such places.

In addition, we asked the interviewers to classify each person encountered whether they considered them to be homeless or not. This opinion was taken into account in producing an alternative estimate.

B, C. D. In shelters, selected respondents were approached by interviewers, offered a $5 payment and drawn aside to a relatively private spot in the shelter for interviewing.

On the streets, all persons encountered were offered $1 for answering the screener and additional $4 for answering the full questionnaire. Screening interviews took place on the spot, in the presence of any others. Full interviewing took place on the spot, with interviewers attempting to draw respondents aside.

Both street and shelter respondents were asked to participate in a survey on how Chicagoans were living.

Hidden Homeless

The street sample attempted to find the homeless where they were located. However, persons living in conventional dwelling units or in places behind locked doors were not reached, because we did not believe it would be ethical to do otherwise.

Weighting and Estimation Procedures

Note that we computed several estimates as shown in Chapter 3 of *Down and Out in America*:

Estimates based on each survey

Estimates based on corrections for un-enumerated segments, such as homeless in jail, hospital, detox, etc.

Point prevalence and annual prevalence estimates

A, B. Weighting was by conventional methods. See Appendix of *Down and Out* for details.

C. We obtained names and SSNs. Duplicates were weeded out by checking for duplicate SSNs and names.

D. Nonresponse corrections made for nonresponse to screeners, assuming nonresponders divided homeless-to-domiciled proportion found among the responders.

E, F. No correction was made for frequency of use, although alternative size estimates were computed taking into account estimates of the homeless to be found in temporarily in conventional dus based on respondent retrospective accounts of last week's sleeping patterns. We used these to estimate homeless in jails, hospitals, temporarily in conventional dwelling units.

G. Adjustments in making alternate estimates (presented in Chapter 3 of *Down and Out*) increased estimates from around 2300 to 2700. The effects of adjustments were to increase the size estimates as shown above.

H. Accompanying children were enumerated and added into estimates as separate category.

I. Universe is City of Chicago. Standard errors (SE's) were computed. See Appendix B of *Down and Out.*

J. Because we had two surveys and identifiers we also made estimates based on capture-recapture methodology. However, the SEs on the estimates were much larger than SEs based on each of the separate surveys treated as cross sections. The computations are shown in Appendix to *Down and Out*.

URBAN INSTITUTE 1987 STUDY

responses prepared by Martha R. Burt

Basics

A. When was the study done (year, month)? March 1987

B. Who did the study?

Principal Investigator/Director? Martha R. Burt

Organizational Auspices? *Urban Institute, under contract to USDA, Food and Nutrition Service*.

Were interviews contracted out to a survey research organization? If so, which one?

Yes, for the interviews with homeless people—Research Triangle Institute. Interviews with service providers were done by Urban Institute employees.

C. What were the study's purposes; why was it undertaken?

Official reason: To evaluate the impact of a piece of legislation, the Prepared Meals Provision, that enabled homeless people to exchange food stamps for prepared meals in soup kitchens and shelters. Unofficial reason: To get good national estimates of characteristics and needs of the homeless population.

D Who conducted the actual interviews (e.g., homeless people, social services staff, trained interviewers hired by a survey research organization, etc.)? Did they do the interviews in pairs/groups, or alone?

Trained interviewers hired by RTI. Except in one city, they went to the facility in pairs, and did the sampling and screening in pairs. The interview itself was conducted with one interviewer interviewing one client.

E. What kind of training did interviewers receive? How long did it last? Did it include practice interviews? At sites similar to those to be encountered in the survey itself?

Interviewers received two days of training in the use of this particular instrument. They practiced conducting the interview with each other, and received extensive drilling and practice on the screener and on the food recall portion of the interview. They did not do practice interviews at service delivery sites. Basic training in interviewing was assumed, as they were all experienced survey interviewers frequently used by RTI in the past. Some, in particular cities (e.g., Chicago), had worked on other homeless studies.

F. What geographical areas were covered (which cities, counties, states)?

All soup kitchens and shelters within the city limits of the 20 cities in our sample (New York, Los Angeles, Philadelphia, Detroit, Chicago, Houston, Atlanta, Birmingham, Cleveland, Memphis, New Orleans, Pittsburgh, San Jose, St. Louis, Seattle, Bridgeport CT, Reno NV, Madison WI, Waco TX, Winston-Salem NC).

G. What was the time period of data collection (one night, over a week's time, over a month's time, what)? How does the time period of data collection relate to the time period the estimate covers (e.g., 1-night or 7-day estimate)? Was it intended as a crosssectional or longitudinal survey?

Cross-sectional study. Data collection took place during the month of March 1987, but for only one session at each location. There is no relation between the period of data collection and the period of estimate.

Sampling Frame—Locations

A. What locations were included?

All soup kitchens and shelters within the city limits of sampled cities that served at least 10 adults, if shelters, or at least 15 adults at their largest meal, if soup kitchens.

Overnight/residential institutions

Shelter-type institutions (shelters, domestic violence shelters, subsidized temporary hotel/motel/apartment, e.g., voucher programs,but not permanent subsidized housing such as Section 8, runaway and homeless youth centers)

All shelters for the homeless, all domestic violence shelters, subsidized temporary voucher programs run by the city in New York and Philadelphia, were in the sampling frame. In addition, private programs that offered vouchers to hotels or apartments were in the frame. We later checked with all other cities to see if there were government voucher programs we missed. Four cities—Los Angeles, Chicago, Cleveland, Pittsburgh—had such programs in March 1987. We determined that we had missed about 60 single men in Los Angeles and about 300-350 households with children in Chicago (192) and in the strata represented by Cleveland (10) and Pittsburgh (104).

We did not go to runaway/homeless youth shelters.

Non-shelter institutions (e.g., jails, mental health facilities, detoxification centers, quarter-way, half-way and three-quarters-way houses)

Not in sampling frame.

Gray-area institutions—

Are Single Room Occupancy (SRO) and hotel rooms *paid for with the occupant's own resources* included (such as YWCA rooms, residential hotels with long-term occupants)?

The *shelter* components of these places were in our sample (e.g., if the local Y had a floor set aside for homeless, or a hotel accepted vouchers, we interviewed the homeless/vouchered people. We excluded self-pay individuals.)

In Philadelphia, where the city contracted with many board and care homes to house homeless people, we did go to these places, and interviewed only those people who were housed under these city contracts for the homeless. In New York we did the same for city-paid homeless families in hotels.

Are transitional and permanent housing projects including group homes, SROs, apartments or other arrangements that serve the once-homeless included?

No, but there weren't many of them in existence when we did the study.

Are long-standing institutions for people displaced by emergency situations included, such as facilities for abused and neglected children removed from their homes, or "quickie" arrangements for San Francisco's earthquake victims?

No.

What about hospitals housing "boarder babies"?

No.

Non-residential institutions

Soup kitchens, mobile food vans, drop-in centers, health clinics (others?)

All soup kitchens or feeding programs of any kind were included as long as they were within the city limits. Drop-in centers, health centers or other non-residential institutions were not included unless they served a regular meal to anyone who wanted to come.

Non-institutional locations

Streets, parks, transportation depots, abandoned buildings, parked cars, parts of highway or public transportation systems, parking garages, railroad boxcars, or, geographical designators, such as blocks?

No, not in the probability part of the survey. We did go to five of these places in each city, identified by local providers and police, where we interviewed a small non-random sample of homeless people. This part of the data collection is not included in the data on which our estimates of population size are based. But, since only 32 percent of the homeless identified in these congregating sites had *not* used a soup kitchen or shelter within the past week, we did gain some idea of how well our "service user" frame captured the entire homeless population.

Conventional dwelling units

To identify and count the "doubled-up" population, however defined.

No, except for those few apartment programs where an agency maintained the apartments for homeless people, and placed different homeless people and families in them as the need arose. Sampling was done from a roster supplied by the agency issuing the voucher or permission to stay in these apartments, not by going door to door.

B. How was sampling frame developed, and its completeness and accuracy (about estimates of size) determined?

We first obtained lists of soup kitchens and shelters from any agency in town that had them—Coalitions for the Homeless or Committees on Hunger, Departments of Human Services (by whatever name) etc. We then called every program to verify its existence, address and whether within city limits, clientele (whether they served the homeless), size (number of beds, or average number of people served at biggest meal), days and times open, proportion of clientele homeless (for soup kitchens). Providers were also read the entire list of soup kitchens and shelters for their city and asked whether any were missing. This procedure eliminated programs outside the city limits, those that did not serve the homeless, those that had gone out of business, those that had too few adults for our sampling procedures (we wanted 5 completed interviews from each location), and those that were duplicates with another program on our list by another name. This procedure also identified double programs—usually a shelter that fed its own residents, but that also operated a soup kitchen that served non-residents for at least one meal. These set-ups were counted as two programs. Finally, Urban Institute staff conducted in-person provider interviews with the directors of each program. In the course of setting up these interviews a few remaining programs were eliminated as out of scope, and a few additional programs were identified and added to our lists (as when one agency operated several programs and we had not known about one or more, or when a new program had opened within the past month or two).

C. How was selection made from units in sampling frame?

The universe of soup kitchens and shelters were stratified by type (soup kitchen, shelter with meals, shelter without meals) and by size (under 26, 26 to 100, over 100). Selection was made randomly with probabilities proportional to size within strata, to fill a sample size of 400. Backup sampling was done at the same time.

D. What are the biases present in the study's choice of research sites? (i.e., what parts of the homeless population are probably excluded?)

We did not interview anyone who did not use either soup kitchens or shelters.

E. Was any attempt made to oversample any population (e.g., women, minority populations)?

No.

Sampling—Respondent Selection

A. How were individuals selected at each site?

Randomization issues (take all, fixed skip interval, number interviewed dependent on size of facility/location, etc., etc.)

Interviewers had a target of 5 completed interviews for each site. Screener target numbers were set depending on whether the facility was a shelter (all expected to be homeless) or a soup kitchen (65 percent expected to be homeless). After ascertaining from the provider the number of people expected at the site, the interviewers calculated the skip interval and used a random number table to select the first person

to be screened. Facility users were randomly selected using a random start and fixed skip interval, through one of several techniques as appropriate to the setting— from individuals as they passed through a meal line, a layout of tables and chairs in the seating area of a meal program, a roster of shelter users, or a layout of shelter beds. Interviews usually took place at a meal time, after the respondent had eaten; in shelters without meals most interviewing took place in the evening. Completed interviews were obtained from 97 percent of persons identified as homeless, all of whom were paid $5.00 for participation. In soup kitchens, only 57 percent of screened individuals were identified as homeless. These procedures yielded a sample of 1704 individuals.

Screening procedures (what criteria were used, if any to determine that a potential respondent was really homeless? Was a potential respondent's financial contribution a criterion—e.g., if a respondent paid for a hotel room with own resources, or contributed to the rent in a doubled-up situation, was s/he counted as homeless? What characteristics would have *excluded* a potential respondent from the study as not homeless?)

Respondents were first screened for homelessness. Respondents were classified as homeless if: 1) they said they did not have a home or a permanent place to live; 2) they said they did have a home or permanent place, but that place was (a) a shelter or hotel/motel paid for by "homeless" vouchers or other pay arrangements, (b) an outdoor or indoor space not meant for habitation, (c) the home of a relative or friend with whom they did not have a regular arrangement to stay for five or more days a week.

Were the screening procedures validated in any way to assure they selected truly homeless people and excluded truly non-homeless people?

No verification was obtained for their responses, either from agency records or from other people.

B. How were respondents approached? Who was present (interviewer? escort?)

Usually, one interviewer of a pair counted and identified a potential respondent for screening. The other interviewer approached, asked permission to ask a few questions, and then administered the screening questions. These were usually answered in the presence of other people on the meal line, or in the room if it was a shelter environment. No escorts were used.

C. How was the research explained?

The research was explained as an interview to learn about homeless people, where they went for services, what they ate and where they were able to get food, and some simple information about themselves.

D. Were they paid? How much? How was this explained?

All respondents were paid $5.00 for their time. This was explained at the same time as permission to conduct the interview was obtained, after the screener identified an eligible (i.e., homeless) person.

E. Did screening or interviewing occur within the hearing of other homeless people, facility staff, or someone else? If yes, how might this have affected either agreement to participate in the study or answers to particular questions?

Yes, for screener. Usually not for the interview itself. I don't know how answers might have been affected.

Finding the "Hidden Homeless"

We interviewed people in soup kitchens. Twenty-nine percent of all respondents used only soup kitchens, not shelters, over the 7-day period prior to the interview, and would thus count in the "street" or "hidden" part of the homeless population.

In addition, our weighting procedures included an adjustment for frequency of use over the 7-day period preceding the interview. This adjustment had the effect of multiplying the infrequent service users more than the frequent users. Since infrequent users would be more likely to be "hidden" on any given one-night count— that is, to be somewhere other than in a shelter—our weighting procedures also statistically "included" additional "hidden" homeless. The adjustment for frequency of use increased the population estimate by 76 percent—from 110,000 to 194,000. We do not, however, have any probability-based way of identifying and estimating the size of the homeless population that do not use either soup kitchens or shelters.

Weighting and Estimation Procedures

A. Were any used? If not, why not?

B. Describe those used. Please include mathematical expressions/formulae.

Weighting procedures were applied to each record. Final weights included the following components: 1) selection of cities from city strata; 2) selection of providers within cities and provider strata; 3) adjustment for provider nonresponse; 4) selection of individuals from all facility users (after screening); 5) adjustment for individual refusal/nonresponse; 6) adjustment for frequency of use; 7) realignment for homeless who use both soup kitchens and shelters (unduplicating). These weighting procedures resulted in an estimate of 194,000 adults in cities over 100,000 who used soup kitchens and shelters during any given week in March 1987.

All formulae given below.

The standard error for this estimate is 41,800, yielding a 95 percent confidence interval of ± 81,900.

Ten percent of these adults indicated in their interview responses that they had children with them; analysis indicated 34,700 children, with a 95 percent confidence interval of ± 647. Less than half of one percent of the respondents in our study were under 18, since the facilities we sampled tended to discourage or refuse service to unaccompanied minors if they were aware of their age. Thus the runaway/homeless youth part of the homeless population is missing from our study sample.

C. Were any **CORRECTIONS** made for possible duplicate counting due to: (1) use of more than one type of facility (e.g., soup kitchen and shelter, shelter and health); (2) use of more than one facility of a type (e.g., eats at two different soup kitchens in a day); (3) use of one or more types of facilities although found and interviewed "on the street." Describe them, and their effects on the final count, if possible. If not, could you make these corrections (did your procedures yield the information to make such corrections)?

Yes to 1; No to 2; 3 is irrelevant. We decided we could not do 2 on a per-person basis, because we could not assign a unique number to each individual. We did, however, make an overall assessment of the probable overestimation due to usage of more than one soup kitchen in a day—had we been able to do this on an individual basis, the size of the estimate would have been reduced by 5.3 percent.

D. Were any **CORRECTIONS** made for non-response, of facilities (refusal to allow clients to be interviewed) or individuals. Describe them, and their effects on the final count. If not, *could* you make these corrections (did your procedures yield the information to make such corrections)?

Yes, see above.

E. Was any adjustment made for frequency of use over a period of more than one day (e.g., UI's 7-day adjustment). Describe, and its effect on the final count. If not, *could* you make these adjustments (did your procedures yield the information to make such adjustments)?

Yes, see above.

F. Did you make any other adjustments or corrections? Please describe.

No.

F1. Formulas.

Let C(h+) be the total persons in poverty in noncertainty stratum h and Cn (++) be the total count of people in poverty over all noncertainty strata (excluding New York City boroughs). The first-stage sample allocation to stratum h was calculated as:

$$n(h) = 14\ C(h+)/Cn(++) \quad (1)$$

and rounded to the nearest integer.

With this approach, the first-stage probability of selection of city i from stratum h can be expressed as:

$$p_1(hi) = n(h)\ C(hi)/C(h+) \quad (2)$$

New York City was handled separately. Two of New York City's four boroughs with populations exceeding 1,000,000 were selected with probability proportional to their number of people in poverty. For the two New York City selections, the probability of selection was:

$$p_1(12i) = 2\ C(12i)/C(12+) \quad (3)$$

In the 12 cities where the optimum number of providers for our sample was equal to or greater than the number of providers in the city, all providers were included. Hence their probability of inclusion was 1 and their second stage weight was 1.

For 9 cities sampling of providers was necessary. Within each of these 9 cities, separate sampling/weighting classes of providers were created for small, medium and large soup kitchens, shelters without meals and shelters with meals. The second-stage sample of shelter/meal sites was selected with probability proportional to the measure of size described above. Let S(hifj) be the measure of size of provider j of provider type f within sample city hi and m(hif) be the provider f sample size selected from city hi. Then within sample city hi, each sample provider had conditional probability $P_2|_1$ (hifj) of selection where:

$$P_2|_1(hifj) = m(hif)\ S(hifj) / S(hif+) \quad (4)$$

If fewer than m(hif) type f providers exist within each site, than all of type f providers in that sample city were included with probability of selection equal to one. The conditional second-stage weight is calculated as:

$$W_2|_1(hifj) = 1 / [P_2|_1(hifj)] \quad (5)$$

Except for adjustments to reflect differential frequency of using providers and the multiplicity associated with differing use of soup kitchens and shelters, the conditional third-stage probability of selection of person k within shelter j of provider type f of city hi may be expressed as:

$$P_3|_2(hifjk) = r(hifj) / R(hifj) \quad (6)$$

where
r(hifj) is the sample size selected from the hij-th type f provider and
R(hifj) is the total population size associated with the hij-th type provider.

Nonresponse rates were calculated at both the screener and survey stages and the non-response adjustment was the inverse of the combined nonresponse rates. The weights of all the responding homeless persons were summed with the weights of all the nonresponding homeless persons and then divided by the weights of all the responding homeless persons. This weighting class response adjustment was then applied to each respondent weight in the weighting class. For the whole sample, the average nonresponse adjustment was 1.12 reflecting an overall response rate among homeless respondents of 89 percent (100/112).

The adjustment for differential frequency of provider use was accomplished by multiplying the product of the earlier stage weights by the inverse of the proportion of the time the respondent used shelters during the preceding week for those interviewed at shelters. This information was taken from the individual interview in Interview Question H3.a. The adjustment is:

$$U_{sh} = 7/(H3.a) \quad (7)$$

The following assumption about soup kitchen use was made: Let d = the number of days per week the soup kitchen is open. If a respondent is interviewed at a particular soup kitchen, it is assumed that he or she eats at that soup kitchen every day it is open, provided that the number of days he or she reports eating at soup kitchens (Interview Question H11.a) is less than or equal to d (this was the case about two thirds of the time). If H11.a is less than or equal to d, the conditional probability of being selected, given that the soup kitchen is sampled on the specified day is (H11.a)/d and the appropriate adjustment to the basic sampling weight is:

$$U_{sk} = d/(H11.a) \text{ when H11.a is less than or equal to d} \quad (8)$$

If H11.a is greater than d, then the respondent must eat H11.a - d days at other soup kitchens. Therefore, there is a higher probability of this individual being included in the sample, given that S/he could have been interviewed elsewhere at other soup kitchens. Let S equal the sum of the measures of size of all the sampled soup kitchens in a given city, divided by the sum of the measures of size of both sampled and nonsampled soup kitchens in that city. Let D equal the number of days open (in total) for all of the sample soup kitchens and d equal the number of days open for the soup kitchen at which the respondent was interviewed. Then the additional probability of selection can be approximated by S(H11.a - d)/(D - d) and the total adjustment to the probability of selection is 1 + S(H11.a - d)/(D - d). The inverse of this term

$$U_{sk'} = 1 / [1 + S(H11.a - d)/(D - d)] \text{ when H11.a exceeds d} \quad (9)$$

constitutes the factor by which the basic sampling weight is adjusted.

Of the respondents interviewed at soup kitchens, U_{sk} was calculated for 62 percent while $U_{sk'}$ was calculated for the remaining 38 percent. Using the unweighted values from the sample, the average values of U_{sh}, U_{sk} and $U_{sk'}$ are 2.91, 1.69 and .94, respectively for a combined frequency of use adjustment of 1.88 overall.

We have two distinct, consistent estimates of the homeless population that uses both; the sum of the weights of the homeless who were interviewed at soup kitchens but also use shelters and the sum of the weights of the homeless interviewed at shelters who also use soup kitchens. We used the weighted average of these two estimates to make this final realignment for users of both types of providers. We have chosen weights that reflect their relative sample sizes.

Let n_{sk} = number of respondents interviewed at soup kitchens, and
n_{sh} = number of respondents interviewed at shelters. Then:

$$p_{sk} = n_{sk} / (n_{sk} + n_{sh}) \quad (10)$$

$$p_{sh} = n_{sh} / (n_{sk} + n_{sh}) \quad (11)$$

where p_{sh} and p_{sk} sum to one.

G. What are the probable effects of weighting procedures, corrections and adjustments on the proportion of the homeless likely to be included in the final estimates?

My guess is that we have included between 65 and 85 percent of the homeless after all weighting procedures were done. This is based on learning, from the screening procedures to obtain our small sample of non-service users, that only 30 percent of the homeless people approached on the street had not used a soup kitchen or shelter within the previous 7 days. The upper bound comes from a similar procedures followed by Farr, Koegel and Burnam (1986) for Los Angeles, where only 15 percent of homeless people interviewed in congregating sites had not used a soup kitchen or shelter within the previous month.

THE POPULATION ESTIMATE: ISSUES AND LIMITATIONS

Throughout, this presentation of weighting has mentioned different adjustments and realignments of the weights, each of which has an effect on the final weight. Here we summarize the effects of the adjustments we made. We also present the likely or estimated effects of adjustments we did not make. In this latter category are placed the results of weighting techniques or approaches about which reasonable statisticians may differ. We have made the calculations, and present the results so that readers may draw their own conclusions about the appropriateness and importance of each potential adjustment.

Adjustments We Did Make, and Their Effects

Frequency of Use Adjustment. This adjustment takes account of how often individuals use soup kitchens and shelters. It gives less weight to frequent users and more weight to infrequent users, on the grounds that the frequent users had a higher probability of selection for our sample and infrequent users had a lower probability of selection. The population estimate without the frequency of use adjustment is 110,334. With the frequency of use adjustment the population estimate is 194,017. Thus the frequency of use adjustment produces an increase in the population estimate of 83,683, which is a 75.8 percent increase over the estimate without the frequency of use adjustment.

Realignment for Those Who Use Both Soup Kitchens and Shelters. The final estimate of homeless persons who use both soup kitchens and shelters is 74,320. This estimate is roughly half of what it would have been had we not realigned the weights to account for the fact that people who used both types of facilities had twice the probability of selection as those who only used one type of facility. Without this realignment the population estimate would have been 272,868; with the realignment it is 194,017. Thus the population estimate for homeless adults would have been 78,851 higher without this realignment.

To summarize:

Frequency of use adjustment	—increases estimate by	 83,683
Realignment for those who use both soup kitchens and shelters	—decreases estimate by	 78,851

Adjustment	Estimate	Standard Error of the Estimate	Confidence Interval
Basic estimate	194,017	41,784	+ 81,893
Estimate without frequency of use adjustment	110,334	17,619	+ 34,534
Estimate with frequency of use adjustment, but before realigning for those who use both soup kitchens and shelters	272,868	56,266	+ 110,281

Adjustments We Did Not Make, and Their Effects

Reduce Reno Weights. We adjusted the weights of soup kitchen users in Reno, as described above, in all of our analyses of data describing the homeless population. The argument could be made that the total population estimate should also be reduced, using the imputed weights for Reno rather than the unimputed weights. Were one to make this change, the size of the population estimate would be reduced by 19,786, or 10.2 percent.

Adjust for Multiple Soup Kitchen Use Within a Day. As described above, some people ate more meals in soup kitchens than were served by the soup kitchen where we found them, implying that they might have had additional chances at selection into the sample when they were eating at other soup kitchens. If one adjusted for this multiplicity effect, the size of the population estimate would be reduced by about 9,013, or 5.3 percent.

Use Skip Interval Rather than Estimate-to-Screener Ratio. As described above, we used the ratio of provider estimate of population size to the number of screeners attempted in calculating our third-stage weight component. If we had used the skip interval, we would have achieved a smaller overall population estimate, by about 18,398, which is 9.5 percent of the final estimate of 194,017.

Add Homeless Users of Voucher Programs. If we add the people missed because some voucher programs were omitted from the sampling frame in some cities, we would increase the population by approximately 300-400. Of these, approximately 60 are single men in Los Angeles, and 300-350 are homeless households with children in Chicago (192) and in the strata represented by Cleveland (10) and Pittsburgh (104).

To summarize:

Adjustments that would reduce the size of the estimates:

Reduce Reno weights	down by 19,786 (10.2%)
Adjust for multiple soup kitchen use within a day	down by 9,013 (5.3%)
Use skip interval instead of provider estimate divided by screeners attempted	down by 18,398 (9.5%)

Adjustment that would increase the size of the estimates:

Add population of omitted voucher programs	up by approximately 400 (0.0%)

Reduce Reno weights	down by 19,786 (10.2%)
Net effects of adjustments not made	down by 43,197 (22.3%)

H. How were accompanying children dealt with, in the interviews/data collection and in the counts?

Adults were asked if they had children with them, and if so, how many. Our estimate of the number of homeless accompanied children (not runaways) came from these answers. Ten percent of adults had an average of 2.1 children with them, for a total estimated 34,653 children, ± 647.

I. To what universe, if any, is sample generalizable? What population or subpopulations are estimated? Could standard errors be computed? Were they computed, or was any other estimation of variance computed? What were the results?

Adults homeless users of soup kitchens or shelters in U.S. cities of 100,000 or over (1984 population). Estimates also given separately for users of shelters only, soup kitchens only and both soup kitchens and shelters, for adults and children separately, and for 1-day and 7-day estimates. Standard errors were computed, and are given above.

J. Please describe any special estimating techniques, if you used them (such as capture-recapture).

None.

RAND'S 1987 SURVEY OF HOMELESS IN 3 CALIFORNIA COUNTIES

responses prepared by M. Audrey Burnam

Basics

A. The project was conducted June 1987- February 88. Enumerations and surveys of homeless individuals were conducted the week of September 15, 1987 in Orange County, the week of October 19, 1987 in Yolo County, and the week of October 25, 1987 in Alameda County. A second enumeration of Alameda County, which did not include a survey, was conducted the week of January 11, 1988.

B. Co-Principal Investigators were Georges Vernez and Audrey Burnam. Audrey Burnam directed the component of the project that involved enumerating and surveying homeless persons.

Organization: The RAND Corporation. Fieldwork was conducted by RAND's in-house Survey Research Group.

C. Purpose: In 1985, the State of California enacted legislation which allocated $20 million annually to the state's 58 counties to support programs for the homeless mentally disabled (HMD). In 1986, the California State Legislature mandated an independent review of the HMD programs that the counties had established with state funds. RAND received the contract to conduct that review, which was to determine the accountability of funds, describe the demographic and mental disorder characteristics of the target population, and assess the effectiveness of the program.

D. Trained interviewers hired and trained by RAND's survey research group conducted the enumerations and surveys. The fieldwork was conducted in groups (of 5-7 people) in the shelter sampling sector, and was conducted in pairs (1 interviewer and 1 off-duty police escort) in the street sampling sector.

E. Training was conducted over 4 days. It included general training in conducting a structured, objective interview; becoming familiar with sensitive approaches to interacting with homeless and mentally disabled persons, learning detailed procedures and roles for enumerating and searching for homeless persons, becoming comfortable with encouraging the participation of respondents, and specific instructions and practice with the study's survey instrument. It included practice interviews with the instructor acting as respondent (mock interviews), and practice with homeless individuals (live interviews). The entire search, enumeration, and survey protocol for the street sampling sector was piloted by several of the field staff on one night in an area near RAND's Santa Monica office which contains a large number of homeless individuals, but was not one of the counties in which the study was conducted.

F. The enumeration was designed to give estimates of the homeless populations of Alameda, Orange, and Yolo counties in California, and the surveys were designed to represent these populations.

G. The data collection was designed so that data collection in a given community (for example Berkeley, in Alameda County) would occur in one night, with enumerations and surveys in the shelters occuring during the evening hours, and enumerations and surveys in the street sampling sector occuring during the late-night and earlymorning hours. The data collection took 2 nights in Yolo County, 3 nights in Orange County, and 5 nights in Alameda county. The design was cross-sectional.

Sampling Frame—Locations

A. Locations included shelters and streets. Shelter sector was a sample of all shelters in 3 counties for homeless persons (in one county this included a YMCA that largely served homeless persons). Excluded were shelters specifically for battered women. The counties studied did not have runaway/homeless youth centers.

Jails and treatment institutions were excluded.

SROs, hotel rooms, apartments, housing projects, etc. were excluded.

Street sector was a stratified sample of blocks. Searches in selected blocks included search of outside locations (parks, streets, freeway underpasses, beaches, churchyards, etc.), public areas with night-time access (bus and train depots, parking garages, all-night eateries, etc.), abandoned buildings, and vehicles.

Soup kitchens, drop-in centers, and other locations that did not provide overnight sleeping arrangements were excluded.

B.-C. For the shelter stratum, the sampling frame was all shelters in the county. Shelters were selected with probability proportional to the number of persons given beds in that shelter on a typical night. Among shelters that were not selected, an enumeration of residents on the night of the survey in that community was obtained. Thus, the enumeration of homeless persons in the shelter sector was a complete enumeration. Within shelters, adults (persons were screened and those under 18 were not interviewed) were randomly selected for an interview (although we attempted to interview a fixed number of adults in each shelter within counties, the actual number selected varied somewhat.)

In Orange County, 6 of the county's 16 shelters were selected, representing 230 of the 423 persons in shelters, and 45 persons were interviewed. In Alameda county, 5 of 13 shelters were selected, representing 180 of 305 sheltered individuals, and 70 persons were interviewed. And in Yolo County, both of the two county shelters, housing 6 persons at the time of the survey, were selected, and all 6 were interviewed.

For the street stratum, we used a stratified multi-stage sampling strategy. At the first stage, census tracts were sampled, and at the second stage, census blocks. All selected blocks were thoroughly searched, and counts were made of persons who were determined (by a screener) to be homeless, as well as of persons whose homeless status could not be determined. Those who were homeless and at least 18 years old were asked to participate in the survey. In a few searched blocks, too many individuals were found for available staff to interview each, in which case all individuals were enumerated and as many as possible were randomly selected for an interview.

The census blocks and tracts in each county were stratified on the basis of estimates of the number of homeless persons who would typically be found overnight in each block and tract. The estimates were obtained from local experts, generally police officers who patrolled the areas at night. Tracts and blocks believed by the experts to contain no homeless individuals were not sampled.

In Orange County, there were 5 tracts that had high estimates (over 20 persons), all of which were selected; 4 of 14 medium estimate tracts (between 4 and 15 persons) were randomly selected, and 3 of 31 low estimate tracts (1 to 3 persons) were selected. Within selected tracts, all 7 high estimate blocks (4 or more persons) were selected, and 38 of 65 low estimate blocks (1-3 persons) were selected.

In Alameda County, expert opinions suggested that the areas inhabited by homeless individuals at night were somewhat dispersed. Thus, tracts were initially stratified by whether homeless persons were "likely" to be found, or whether a homeless persons would "possibly" be found. All of the 41 census tracts classified as "likely" were selected, as well as 13 of 116 census tracts classified as "possibly." Within the selected tracts, all blocks thought to contain any homeless persons (a total of 272) were selected.

In Yolo County, experts mentioned only 9 census tracts in which homeless individuals might be found at night. Within each of these tracts, all 31 blocks thought to contain homeless persons were searched. The Yolo County street enumeration was therefore a complete census of relevant areas as identified by local experts.

We did not estimate a range of uncertainty in homeless population size due to sampling error. Sampling error could result in a substantial range of uncertainty only in the Orange County street sample, and, to a lessor extent, in the enumeration of the Alameda County street sample.

D. Biases

Seasonal variation. We cannot estimate from our data whether the size of the homeless population varies seasonally.

Restrictive definition of homelessness. We did not focus on those who were temporarily housed on the night of the survey (for example, with friends or in hotel rooms), or those at risk of literal homelessness (for example, institutionalized with no permanent place to go when departing institution, or those doubled up with friends or family). We attempted to make an adjustment in our estimates of population size for the temporarily housed. However, this adjustment rests upon the assumption that those surveyed are just as likely to be temporarily housed on any given night than those who were, in fact, temporarily housed on the night of the survey.

Failure to count all homeless. We may have failed to count all the people literally homeless at the time of the survey, for two reasons. First, we may not have found some of the homeless who were actually in the sampled blocks. However, we believe this was not a serious limitation because of the thoroughness with which the sampled blocks were searched. Second, we did not sample tracts and blocks that our experts identified as having no homeless. Because there were so many of these areas in the counties, their omission may have led to substantial underestimates. As a check on the reasonableness of eliminating these zero-estimate tracts from our sample and enumeration, we searched 17 blocks in 7 zero-estimate census tracts in Alameda County. We found one homeless person in one of these blocks, and another individual in another block who could not be positively identified as homeless. Although not a large enough sample of zero blocks to make a reliable estimate of the numbers of homeless persons in these areas, if we assume that this pattern is typical for other zero-estimate areas, omission of them from our sampling frame resulted in underestimates of 13 to 22 percent in Alameda County.

Absence of longitudinal information. Although we estimated the number of homeless persons in these counties over the course of a year, as well as on a given night, these estimates assume that the size of the homeless populations in these areas is fairly constant over time. Data from this study cannot be used to estimate, however, whether or how the absolute homeless population size might be changing over time.

E. There was no oversampling of special subgroups.

Sampling—Respondent Selection

A. In shelters, an approximately fixed number of persons were randomly sampled from bed lists using a random number table. The number actually interviewed varied slightly depending on the size of the facility, and had an upper limit of the number of adults found in the facility. When beds held persons under 18, they were replaced. On the streets, everyone was selected except on a few blocks with large numbers of persons. In that case, a random number table was used which randomly selected respondents who had first been ordered spatially. The number of persons interviewed was based on an assessment of the number of interviews that could be completed with available staff and time.

Screening surveys were conducted with sampled respondents. The screener determined age (since those under 18 were not interviewed). If respondents were sampled in the shelter stratum, they were assumed to be homeless. If they were sampled in the street stratum, and they were sleeping, or clearly prepared to sleep (for example, had bedding with them), they were also assumed to be homeless. Other persons in the street stratum were screened to determine whether they were homeless, using a series of 3 questions. If respondents said that: 1) they did not have a home; or 2) that they considered their home to be a public place, a shelter, the streets, an abandoned building, a vehicle, or a campground; or that 3) there was at least 1 night in the last 30 in which they had to sleep in a car, the street, a shelter, etc., then they were considered homeless.

Screening procedures were not validated.

B. Respondents were approached by interviewers.

C. The screener was explained as a survey on housing. If the respondent was eligible, he/she was invited to answer some questions about their physical and mental health and their use of programs and services. It was explained that the survey would help the state and county improve services for people who sometimes don't have regular homes.

D. Respondents were paid $1 for the screener and $3 for the survey. (Note: the screener took 1-5 minutes and the survey averaged 20 minutes.)

E. Interviews were conducted out of hearing range of other persons.

Hidden Homeless

This study did a relatively good job at finding the "hidden" homeless, if they were literally homeless, by virtue of the street sampling sector as described above. Some homeless persons, of course, may have been missed in spite of a thorough search of selected blocks, if they were well-hidden. As noted above, I don't believe this is a serious source of bias in this study. A more serious omission is the fact that homeless persons in the "zero tracts,"—that is, in areas of the county that were not frequented by the homeless persons or in which experts had not noticed homeless persons—were not included. These tend to be the more rural and suburban areas of the counties. The study also missed people who were not literally homeless on the night of the survey. For example, those in SROs, staying with friends, institutionalized, etc.

Weighting and Estimation

A.,-B. Weights were used for the survey data analysis. For the street sample, the weight was the inverse of the probability of selection at stage 1 (tracts) multiplied by the inverse of the probability of selection at stage 2 (blocks within tracts) multiplied by the inverse of the probability of selection at stage 3 (homeless adults within tracts).

For the shelter sample, the weight was the inverse of the probability of selection at stage 1 (shelter) multiplied by the inverse of the probability of selection at stage 2 (adults within shelter).

Weights were also used for the estimates of population size. In this case, since there was a complete enumeration in the shelter sector, and in the Yolo county street sector, weights were only used in the Orange and Alameda County street sectors. The number of persons counted in each block was weighted by the inverse of the probability of selecting the tract at stage 1 multiplied by the inverse of the probability of selecting the block within the tract at stage 2.

C. Our strategy was designed to avoid duplicate counts, by conducting an enumeration of a given community on a single night.

D. No corrections were made for nonresponse in analyses of survey data. Response rates were high (92% in shelters and 81% in streets), and as a result serious bias due to nonresponse was unlikely. Only one shelter (with 25 beds for families and children) refused to cooperate.

Persons were enumerated, including those in the noncooperating shelter, whether or not they responded to the survey. When individuals in the street sector could not be screened or refused to be screened, interviewers made judgements about whether the person was "definitely homeless" "maybe homeless" or "definitely not homeless." Estimates of the population size included counts of the "definitely homeless," and were made with and without including the "maybe homeless."

E. No adjustments were made for frequency of use over time, since this was a one-night estimate.

F. Our point prevalence estimate (the number of homeless persons on a given night in each of the counties) was the weighted count of all individuals defined as homeless. As described above, estimates were made with and without counting persons on the streets who could not be screened for homelessness, but who were judged "maybe" homeless by the interviewer. The mid-range of these two estimates is provided in the RAND report.

We adjusted the estimates of point prevalence upward by adding an estimate of the number of homeless persons temporarily housed on the night of the survey. We made this estimate using weighted data from a survey item that asked how many nights the respondent had spent

in temporary housing (e.g., a rented room, in a relative's or friend's home or apartment, in jail, in a hospital) in the past month. From this we calculated the probability that a surveyed homeless individual would be temporarily housed on a given night.

We also provided an annual prevalence estimate, using weighted survey data indicating the last time a respondent was homed (that is, had their own room, apartment, or house; lived in a home with family, friends, or caretakers; or stayed in a hospital, treatment facility, or board and care home) for at least 30 continuous days. Using this information, we estimated the number of continuously homeless individuals over the course of a year by taking the proportion of surveyed homeless persons who reported being continuously homeless during the past year and multiplying this by the point prevalence of homeless persons in each county. Annual incidence of homelessness was estimated by determining the proportion of the surveyed homeless who had become homeless in the past month, multiplying this by the point prevalence of homeless persons in each county, and then multiplying by 12. Annual prevalence estimates were made by summing the number of continuously homeless individuals over a year and the annual incidence of homelessness.

G. The adjustment for the temporarily housed is likely to be an underadjustment, since those who were, in fact, temporarily housed on the night of the survey are likely to have a higher probability of being temporarily housed on any given night than those who were surveyed. The annual prevalence estimate will be an underestimate if the absolute sizes of the homeless populations in these counties increase over time, as is likely.

H. Children were included in the counts but not in the survey.

I. The sample of surveyed homeless was designed to be generalizable to the adult homeless populations of the three California counties. Standard errors of survey results were computed. Confidence intervals for estimates of the population size were not computed.

RESEARCH ON HOMELESSNESS IN COLORADO
By Franklin J. James

Basics

A. Two studies of Colorado's homeless have been made, the first in April, 1988; the second in April, 1990.

B. The impetus for the first study came from Mr. John Parvensky, executive director of the Colorado Coalition for the Homeless. The study was partially funded by the Denver Department of Social Services. Dr. Franklin James of the University of Colorado developed the survey and analysis methods. Dr. Bernie Jones, also of the University, directed the development of the survey instrument. Mr. Don Krasniewski of the Coalition for the Homeless directed the fieldwork. Dr. James was the principal investigator, and directed the analysis of the results.

The impetus for the second study came from Dr. Swanee Hunt, chair of the Colorado Governor's Coordinating Council for Housing and the Homeless. Questionnaires and analytic methods were developed by Dr. James and Dr. Laura Appelbaum. Fieldwork was directed by Krasniewski, then of the Adams County Department of Social Services. James again was the principal investigator and directed the analysis of the results. This study received funding from the Denver Department of Social Services, the Colorado Trust, and the Colorado Housing Finance Agency. Contributions of staff time were made by the Adams County Department of Social Services.

No fieldwork was contracted out in either study.

C. The initial, 1988 study was done principally to provide baseline counts and characteristics of the state's homeless population. Study methods and definitions of homelessness were developed in collaboration with the Coalition for the Homeless, the Denver Department of Social Services, and the University. The results were intended to provide data acceptable to advocates and government agencies alike. Subsequent to the survey, Governor Roy Romer convened a Governor's Task Force on the Homeless which relied on the study for its analysis of the prevalence of homelessness in the state, and of the needs of the homeless.

The second, 1990 study was done under the aegis of the Colorado Coordinating Council for Housing and the Homeless, a new organization established by Romer as a result of the recommendations of the Task Force. The 1990 study was intended to:

- update the 1988 research, and document trends in homelessness;
- provide insight into patterns/problems in the use of social welfare programs by the homeless;
- assist in the development of a strategy for preventing homelessness in the state;
- serve as a basis for the development of Colorado's Comprehensive Homeless Assistance Plan, a responsibility of the Council.

D. In both studies, the interviews were conducted by several groups:

- graduate students of the University of Colorado at Denver;
- volunteers and staff of homeless service agencies, including shelters, souplines, health clinics.
- staff of the Coalition for the Homeless, Salvation Army, paid homeless persons.

In the 1990 research, Spanish speaking student interviewers were used in locales where Hispanic homeless were expected.

Interviewers worked in teams. The size of the team depended on the expected numbers of interviews to be done in a place. Interviews on the streets, in abandoned buildings, etc., were done by teams of homeless persons, volunteers and staff, and search and rescue staff of the Salvation Army.

E. Interviewer training was brief in both surveys. Students and staff of the service agencies were instructed for approximately two hours in the use of the instruments. Role playing was used for test runs through the questionnaire.

F. The studies covered the entire state. They were designed to provide separate estimates of the prevalence of homelessness for the Denver metro area (excluding Boulder), and for the rest of the state.

G. Both studies were designed to provide cross-section data on the prevalence of homelessness. Fieldwork occured over approximately a week in both studies. For the 1988 study, the initial fieldwork was done early in April. Supplemental fieldwork was done three weeks later, to test for differences in the characteristics of soupline users early and late in a month. Significant differences were found.

The fieldwork for the second study was done during mid-April, 1990.

Analytical methods were designed to generate estimates of average daily prevalence of homelessness during the study periods.

Sampling Frame—Locations

A. The analytic methods required that probability sampling techniques be used to generate estimates of numbers and characteristics of soupline users in the state during the study periods. The methods also required estimates of patterns of soupline use by two sub-groups of the homeless—persons sleeping "on the streets," under bridges, in abandoned buildings, etc.; and persons in emergency and transitional shelters for the homeless.

In light of these data needs, interviews were done in emergency and transitional shelters, on souplines, and on the streets, in abandoned buildings, etc. Supplemental interviews were done in health clinics and day shelters for the homeless.

Overnight/residential shelters: The 1988 survey included interviews in five homeless shelters in the Denver metro area, and nine in the rest of the state. The 1990 survey was done at nine shelters in Denver, and ten in the rest of the state.

Non-residential institutions: The 1988 survey included users of eight Denver souplines, and eight souplines in the rest of the state. The 1990 survey included five Denver souplines and four souplines in the rest of the state.

In addition, interviews were done at a health clinic and day shelters.

Non-institutional locations: In both 1988 and 1990, interviews were done on Denver metro area streets, under bridges, in abandoned buildings, etc. These interviews were done at night after intake periods for homeless shelters, in places known by staff of the Salvation Army or the Colorado Coalition for the Homeless to be sleeping places of the homeless.

Conventional dwelling units: No interviews were done in conventional dwelling units, unless they were part of a shelter program for the homeless.

B. In both 1988 and 1990, staff of the Colorado Coalition for the Homeless developed complete inventories of all shelters and souplines for the homeless in operation in the state at the time of the study. All souplines and shelters were contacted in person or by telephone, to get censuses of meals served or clients housed on a night during the survey week.

C. Probability sampling methods were used to select institutions for interviews. Contacts were made with institutions to determine whether interviewing would be permitted.

Places "on the streets" were selected by staff of the Colorado Coalition for the Homeless, search and rescue personnel of the Salvation Army, and by homeless workers on the survey, to provide a cross section of the known sleeping places of the homeless.

D. Two significant groups of the homeless are underrepresented:

1. homeless youth: homeless youth do not make much use of services for the homeless. Neither do they sleep in the same places on the streets as are frequented by the adult homeless.

2. adult homeless not using homeless services. Adult homeless staying in SRO hotels, crash pads, or with friends/family who do not use souplines are not included in the interviews or estimates of homeless.

E. No attempts were made to oversample groups.

Sampling—Respondent Selection

A. *Randomization issues:* Target sampling rates were specified for institutions. Systematic sampling procedures were used when possible to select respondents.

Screening procedures: No screening procedures were used in the 1988 survey. All respondents were asked the same, brief list of questions, and the homeless selected from among respondents during the analysis of the results. In the 1990 survey, respondents were excluded from detailed questioning if they reported that they had a permanent residence of their own.

No special efforts were made to validate the screening questions.

B. The approach to respondents differed among places. In most cases, individual interviewers approached respondents on a one-on-one basis, but worked in teams. Some interviewers were homeless persons or shelter/soupline staff. No police were involved in the study.

C. The research was presented as a University of Colorado research project on homelessness in the state.

D. In most cases, respondents "on the streets" were paid $1 for their cooperation. No explanation was required.

E. In some cases, interviewing was done by facility volunteers or staff, or by homeless persons employed by the study. We are not aware of biases caused by these procedures. It may be that the use of persons related to the facility added greater honesty to responses by the homeless, as the homeless respondents were known to the interviewers. Most shelters have intake forms asking questions similar to those asked in the study. Homeless interviewers may have some rapport with respondents that other groups of interviewers lack.

Finding the Hidden Homeless

Study procedures were designed to provide accurate data and comprehensive estimates of numbers of

(1) homeless shelter users
(2) homeless persons "on the streets"
(3) other homeless persons using souplines.

This latter group included persons coming out of jail, hospitals or detox facilities, as well as persons staying in hotels, or with friends or family. Such homeless persons not using souplines were not counted or included.

In 1990, the size and characteristics of the first group—shelter users—was estimated on the basis of a complete count provided by shelters of persons sheltered on a night during the survey, and on the basis of interviews with shelter residents at shelters, souplines, and other places. The interviews were used to ascertain the proportion of shelter users who were homeless, as well as the characteristics of homeless shelter users. In 1988, estimates of numbers of homeless shelter users were based on estimates of numbers of soupline users spending the night in shelters, and on the basis of patterns of soupline use by shelter residents. Estimates of overall numbers of homeless shelter residents were the product of numbers of homeless shelter users of souplines, and the inverse of the proportion of shelter residents using souplines.

The size and characteristics of the second group—street persons— were estimated on the basis of the surveys of soupline users and street persons. Interviews with soupline users were used to determine numbers of street persons using souplines. Interviews with persons on the

streets were used to determine the proportion of such persons using souplines. The overall number of street persons was estimated as the product of the number of such persons using souplines, and the inverse of the proportion of street persons using souplines.

Interviews with soupline users provided a direct estimate of the third group, the "other" homeless using souplines.

Weighting and Estimation Procedures

A. B. In the 1988 research, soupline users were surveyed early in the month and at the end of the month, to test the hypothesis that monthly cycles existed in the characteristics of users. In the final analysis of the data, respondents in both surveys were weighted by the inverse of the sampling ratios in the two surveys. In both 1988 and 1990, estimates of numbers of soupline users involved determining a complete count of soupline meals given out on a day during the study period, and the average numbers of soupline meals consumed per day by soupline users. In 1988 and 1990, determination of the street population of the homeless required an estimate of numbers of street persons using souplines, weighted by the inverse of the proportion of street persons using souplines. In 1988, the same general procedure was used to estimate the homeless population in shelters. In 1990, an inventory was made of all persons sheltered on a day during the study period. The overall homeless population in shelters was estimated as the number of sheltered persons, times the proportion of persons in shelters who were homeless.

Estimates of numbers of homeless children were based on reports by homeless adults of the numbers of children living with them.

C. The statistical procedures do not involve double counting, so no corrections are needed. During the field research, people were not interviewed if they reported they had already answered the questions.

D. All facilities provided counts of meals, sheltered persons, etc., so there is no reason to expect that non-response shaped estimates of the homeless population. Some facilities refused to permit interviewers in; some homeless persons refused to answer questions. Such refusals could shape weights used in the analysis, or estimates of the composition of the homeless population. We have no ability no determine the nature of any problems, or to correct for them.

E. No such adjustments were required, as our intent was to estimate the point prevalence of homelessness.

F. No.

G. Unknown.

H. Children were not interviewed. Parents were asked about the number and situations of their children. Estimates of numbers of homeless children were thus based on reports of parents.

One major weakness of the Colorado research is its failure to provide adequate documentation of the problem of homeless youth.

I. The intended universe is persons in Colorado without a permanent place to live. As has been discussed, homeless youth are not included adequately. Neither are "other" homeless persons not "on the street" or in shelters, who do not use souplines.

Standard errors and variances have not been calculated for the estimates, though there do not appear to be any theoretical barriers to doing so.

J. Not applicable.

Other

Two definitions of homelessness have been used in the Colorado research. The first definition—developed for the 1988 research—is the lack of a permanent residence of one's own, combined with staying overnight "on the streets" or in a shelter for the homeless, or with using souplines. The second and more restrictive definition was the lack of a permanent residence, also in combination with the other criteria. The second is similar to that used in the Stuart B. McKinney Act. The first includes some persons using souplines, who live in the residence of friends or family members.

In 1988, 3,165 persons were classed as homeless in Colorado using the first definition. Using the second definition, 2,605 persons were classed as homeless in that year.

Reports of the 1990 research will utilize the more restrictive definition. Persons meeting the first definition but not the second will be classed as marginally housed.

UNITED STATES BUREAU OF THE CENSUS

responses prepared by Annetta Clark

Basics

A. When was the study done (year, month)? March 1990

B. Who did the study?

Principal Investigator/Director? Barbara Everitt Bryant

Organizational Auspices? U.S. Bureau of the Census, Department of Commerce

Were interviews contracted out to a survey research organization? If so, which one?

Interviews were conducted by the Bureau of the Census.

C. What were the study's purposes; why was it undertaken?

The Census Bureau's goal is to include in the decennial census all persons whose usual residence is in the United States on April 1, 1990. Special procedures had to be developed to reach those persons who were not covered by regular Census Bureau procedures for households or persons in group quarters. The Shelter and Street Night (S-Night) operation was developed to count selected components of the homeless population at pre-identified locations. For this operation, the Census Bureau did not define "homeless," but rather counted people found in locations where homeless persons were known to congregate.

D. Who conducted the actual interviews (e.g., homeless people, social services staff, trained interviewers hired by a survey research organization, etc.)? Did they do the interviews in pairs/groups, or alone?

Trained interviewers (enumerators) hired by the Census Bureau conducted the interviews. District offices were to hire homeless persons and/or persons familiar with the homeless population, as much as possible. Interviewing was done in enumerator teams consisting of two or more persons depending on the location. Large shelters used more than one enumerator team as necessary.

E. What kind of training did interviewers receive? How long did it last? Did it include practice interviews? At sites similar to those to be encountered in the survey itself?

S-Night enumerator training was done in two phases. The first phase covered enumeration of shelters, subsidized units at motels and hotels, and low-cost motels and was about six hours long. The second phase covered the enumeration of street locations, commerce places and abandoned buildings and was about six hours long. Training for S-Night crew leaders (crew leaders supervised enumerators) was part of the Group Quarters training which took place one week earlier. Crew leaders were responsible for training enumerators for both phases using verbatim training guides prepared by the Census Bureau. The enumerator training included active role playing and mock interviews as well as a review of safety tips and basic enumeration rules. Crew leaders and enumerators did not do practice interviews at the pre-identified sites.

F. What geographical areas were covered (which cities, counties, states)?

Shelters, street locations, commerce places, low cost motels/hotels and other S-Night sites were pre-identified for all 50 states, the District of Columbia and in the Commonwealth of Puerto Rico.

G. What was the time period of data collection (one night, over a week's time, over a month's time, what)? How does the time period of data collection relate to the time period the estimate covers (e.g., 1-night or 7-day estimate)? Was it intended as a crosssectional or longitudinal survey?

Data collection took place nationally on the evening of March 20 and the morning of March 21, 1990. Time frames for certain types of S-Night sites were conducted as follows:

Shelters, Hotels/motels and subsidized units

6:00 p.m. until 12:00 p.m. on March 20. Enumeration times for some shelters may have varied depending upon a prearranged agreement between the Census Bureau and the Shelter operator. For example, the enumeration of families in subsidized units may have occurred on March 21st from 8:00 a.m. to 11:00 a.m.

Street Locations and Commerce Places

2:00 a.m. until 4:00 a.m.

Abandoned Buildings

4:00 a.m. until 8:00 a.m.

The S-Night operation was tested and scheduled for one night. The S-Night operation was neither a cross-sectional nor longitudinal survey.

Sampling Frame—Locations

A. What locations were included?

The S-Night operation was conducted nationwide. S-Night sites included all pre-identified emergency shelters (public and private), abandoned buildings, street locations where the "homeless" tend to sleep at night and commerce places (such as train stations and bus depots.) Local officials and local providers worked with the Census Bureau to identify these sites.

Overnight/residential institutions

Shelter-type institutions (shelters, domestic violence shelters, subsidized temporary hotel/motel/apartment, e.g., voucher programs, but not permanent subsidized housing such as Section 8, and runaway and homeless youth centers)

The Census Bureau worked closely with local officials, local providers and the homeless to pre-identify all public and private emergency shelters (both permanent and temporary) with sleeping facilities in their area. This included such places as hotels/motels costing $12.00 or less (regardless of whether the persons considered themselves to be homeless or the length of their stay), pre-identified rooms in hotels/motels used for homeless persons and families, runaway/homeless youth shelters, shelters for abused women, YMCAs and YWCAs, Salvation Army shelters and missions.

Non-shelter institutions (e.g., jails, mental health facilities, detoxification centers, quarter-way, half-way and three-quarters-way houses)

These locations, while not enumerated during S-Night, were enumerated as part of regular census operations. In these locations we will not be able to identify who was or was not homeless. Persons enumerated at these sites will be included in the decennial census count but they will not be reported in the S-Night count.

Gray-area institutions—

Are Single Room Occupancy (SRO) and hotel rooms *paid for with the occupant's own resources* included (such as YWCA rooms, residential hotels with long term occupants, etc.)?

Most such places were counted during the regular census operations. Data tabulations will be available for SRO's. Included in the shelter enumeration on S-Night were such places as:

- Hotels/motels costing $12.00 or less (regardless if short-term or long-term occupant).
- Hotels/motels which accepted vouchers.
- Rooms in hotels/motels designated for the homeless.
- Rooms designated for homeless at the YMCA or YWCA.

Are transitional and permanent housing projects including group homes, SROs, apartments or other arrangements that serve the once-homeless included?

These locations (except for SROs) were enumerated during regular census operations and will not be included in the count of persons enumerated during S-Night.

Are long-standing institutions for people displaced by emergency situations included, such as facilities for abused and neglected children removed from their homes, or "quickie" arrangements for San Francisco's earthquake victims included?

Shelters for abused and neglected children (e.g., emergency shelters/group homes which provide temporary sleeping facilities for juveniles) were included. Displaced earthquake victims, unless staying in the pre-identified shelters, were not included in the S-Night operation but they were counted during the regular census operations. It is possible for data users to get a separate count of such persons.

What about hospitals housing "boarder babies"?

Boarder babies are included in the category "Wards in General and Military Hospitals for patients who have no usual home elsewhere." They are not identified as a separate group.

Non-residential institutions

Soup kitchens, mobile food vans, drop-in centers, health clinics (others?)

No, only residential institutions with sleeping facilities were included in S-Night and in the regular census operations.

Non-institutional locations

Streets, parks, transportation depots, abandoned buildings, parked cars, parts of highway or public transportation systems, parking garages, railroad boxcars, etc. Or, geographical designators, such as blocks?

Non-institutional locations were included in the S-Night operation. Local officials and providers were asked to identify street locations and commerce places where homeless persons tend to congregate at night. The street enumeration included such places as street corners, parks, bridges, abandoned and boarded-up buildings and noncommercial camp-sites ("tent cities"). Commerce places included such locations as railroad stations, airports, bus depots, subway stations, all-night movie theatres and restaurants, emergency hospital waiting rooms and other similar predesignated sites.

Conventional dwelling units

To identify and count the "doubled-up" population, however defined.

Persons or families who are "doubled-up" were enumerated in regular census operations, not the S-Night operation. These persons will not be included in the S-Night count. The Census Bureau will provide tabulations of all housing units with more than one related family or with unrelated persons cross-classified by characteristics. Researchers and planners can use these data as indicators of the precariously housed or homeless, as they see fit.

B. How was sampling frame developed, and its completeness and accuracy (about estimates of size) determined?

The S-Night operation was a nationwide operation that enumerated persons at all pre-identified locations. Sampling of locations was not used.

C. How was selection made from units in sampling frame?

Not applicable.

D. What are the biases present in the study's choice of research sites: (i.e., what parts of the homeless population are probably excluded?

We did not enumerate the hidden homeless and we did not enumerate persons that were at locations not on the Census Bureau's list.

E. Was any attempt made to oversample any population (e.g., women, minority populations)?

Not applicable.

Sampling—Respondent Selection

A. How were individuals selected at each site?

Randomization issues (take all, fixed skip interval, number interviewed dependent on size of facility/location, etc., etc.)

Take all. Enumerators were to conduct complete interviews for all persons living/sleeping/staying at the S-Night site. Staff who worked at the S-Night site (e.g., shelters, commerce places, hotels, etc.) but did not live there were not enumerated as part of S-Night. For shelters, sample data were collected for every sixth person. A fixed skip interval was used to determine which individual would require a long-form Individual Census Report (ICR). Enumerators selected a random start between one and six to determine which line to begin listing the respondent's name and person number in the

sampling registers. If a person's name was listed on the darker gray line, a long form ICR for that person was required.

Respondents were listed and interviewed through several systematic methods appropriate to the facility settings floor by floor; room by room; individuals would get counted as they passed through a meal line or residents were required to report in a dining room/recreation room to be counted by census enumerators who developed their own way of listing individuals.

Screening procedures (what criteria were used, if any to determine that a potential respondent was really homeless? Was a potential respondent's financial contribution a criterion—e.g., if a respondent paid for a hotel room with own resources, or contributed to the rent in a doubled-up situation, was s/he counted as homeless? What characteristics would have *excluded* a potential respondent from the study as not homeless?)

No criteria was used to screen if a potential respondent was really homeless. S-Night locations were pre-identified as places where the homeless may live and/or congregate.

The only characteristic that excluded a potential respondent from S- Night enumeration in shelters and commerce places were staff members who were working and lived somewhere else. At street locations, persons in uniform or engaged in money making activities were not enumerated.

Were the screening procedures validated in any way to assure they selected truly homeless people and excluded truly non homeless people?

No screening was used.

B. How were respondents approached? Who was present (interviewer? escort (what type—off-duty police, another homeless person, etc.), staff of shelter or other agency where interviewing was occurring)?

Enumerators were instructed to introduce themselves and hand the respondent the Privacy Act Notice that states that the respondent's answers are confidential. If a respondent was sleeping or incoherent, enumerators filled out the ICR by observation and did not awake or approach the respondent. Enumeration in commerce places was usually done in the presence of other homeless persons, working staff, and/or on-duty police. Enumeration at shelters were usually coordinated by the staff of the shelter and done before, or just after meal time and in the presence of the working staff and other residents of the shelter. Enumeration at hotels/motels and street locations were usually done in the presence of other enumerators. Interviewing may also have been done in the presence of an observer who must have been a sworn Census Bureau employee. No escorts were used.

C. How was the research explained?

Enumerators explained the importance of counting everyone in the census, including the homeless. They explained that the data collected in the 1990 census will be used to allocate federal and state funding for the next ten years. For example, they explained how the count of the homeless people in their area will aid in obtaining funding for programs to help house the homeless. The enumerators also assured respondents that answers were confidential and could only be seen by sworn Census employees.

D. Were they paid? How much? How was this explained?

Respondents were not paid.

E. Did screening or interviewing occur within the hearing of other homeless people, facility staff, or someone else? If yes, how might this have affected either agreement to participate in the study or answers to particular questions?

Yes, interviewing may have occurred within hearing of other homeless people, facility staff, and others. Enumerators made an effort to interview privately as much as possible. We are not sure how answers might have been affected if persons overheard an interview.

Finding the "Hidden Homeless"

Phase two of the S-Night operation was the enumeration of pre identified street locations and commerce places from 2:00 a.m. to 4:00 a.m. and abandoned buildings from 4:00 a.m. to 8:00 a.m. This phase of the operation was designed so that persons not staying at shelters would have the opportunity to be counted. All visible persons found at the pre-identified street locations and commerce places were counted either by personal interview or by observation. At 4:00 a.m., enumerators went to the abandoned buildings and waited outside the building until someone came out. The enumerators attempted to enumerate the person(s) and collect age, sex, and race data. If the respondent did not want to participate, the enumerator would count the person and complete the answers by observation. If possible, the enumerators questioned the person about the number of people remaining in the building and attempted to get basic demographic information for each person.

Weighting and Estimation Procedures

A. Were any used? If not, why not?

No, the S-Night operation was conducted nationwide. Sampling was not used.

B. Describe those used. Please include mathematical expressions/formulae.

Not applicable.

C. Were any CORRECTIONS made for possible duplicate counting due to: (1) use of more than one type of facility (e.g., soup kitchen and shelter, shelter and health); (2) use of more than one facility of a type (e.g., eats at two different soup kitchens in a day); (3) use of one or more types of facilities although found and interviewed "on the street." Describe them, and their effects on the final count, if possible. If not, could you make these corrections (did your procedures yield the information to make such corrections)?

Yes, S-Night was designed to minimize duplicate enumerations. Specifically, the enumeration was:

- conducted one night to avoid duplicate enumerations on different nights at different locations.
- planned to minimize duplicate enumerations by staggering the enumeration times. For example, shelters were enumerated from 6:00 p.m. to midnight because persons had settled into the shelter for the evening and would not leave the shelter until the next morning. The street enumeration was conducted in the early morning hours so that persons counted in the shelters would not be counted in the street phase. The abandoned building phase occurred after the street enumeration.

We feel that conducting the operation on one night and staggering the enumeration times did minimize duplicate counting.

D. Were any CORRECTIONS made for non-response, of facilities (refusal to allow clients to be interviewed) or individuals. Describe them, and their effects on the final count. If not, could you make these corrections (did your procedures yield the information to make such corrections)?

Yes, if a facility operator refused to allow the enumerators to enter the shelter, enumerators returned to the shelter early the next morning to count persons and obtain basic demographic information for persons as they left the shelter. Also, if a shelter told us that we had missed them on S-Night, enumerators returned to the shelter and enumerated the shelter using administrative records/rosters as of March 20, 1990. If the records/rosters were not available, the current roster was used.

E. Was any adjustment made for frequency of use over a period of more than one day (e.g., UI's 7-day adjustment). Describe, and its effect on the final count. If not, could you make these adjustments (did your procedures yield the information to make such adjustments)?

No.

F. Did you make any other adjustments or corrections? Please describe.

No.

G. What are the probable effects of weighting procedures, corrections and adjustments on the proportion of the homeless likely to be included in the final estimates?

No weighting was used.

H. How were accompanying children dealt with, in the interviews/data collection and in the counts?

A separate ICR was completed for each child in both phases of S-Night. In the shelter enumeration, each person was asked if they had children with them under the age of 15 and recorded the number of children with her/him on the Adult's (ICR). At street locations, persons were not asked if they had children under the age of 15 with them.

I. To what universe, if any, is sample generalizable? What population or subpopulations are estimated? Could standard errors be computed? Were they computed, or was any other estimation of variance computed? What were the results?

Sampling of sites was not conducted. The 1990 census will provide a count and basic characteristics of selected components of the homeless population at the national and local levels on one night.

J. Please describe any special estimating techniques, if you used them (such as capture-recapture).

None.

THE DC METROPOLITAN DRUG STUDY (DC*MADS): HOMELESS AND TRANSIENT POPULATION STUDY

responses prepared by Michael Dennis

Basics

A. When was the study done (year, month)? The study is currently in progress.

The design and instrument were submitted to the Office of Management and Budget (OMB) on October 2, 1990. The sampling frames are currently being constructed and tested. Assuming OMB approval by January 2, 1991, at the latest, the study will be in the field from February through May of 1991. The data will be edited, double keyed, and checked between March 1991 and September 1991. It will be analyzed in the following year and incorporated into the final report for DC*MADS that is due in September 1992.

B. Who did the study? Principal Investigator/Director? Organizational Auspices? Were interviews contracted out to a survey research organization? If so, which one?

Dr. Robert M. Bray is the Principal Investigator for DC*MADS, and Dr. Michael L. Dennis is the Study Director for the Homeless and Transient Population Study. Dr. Dennis receives sampling and statistical support from Dr. Ronaldo Iachan and field support from Jutta Thornberry. DC*MADS has been funded by NIDA and is being conducted under contract by RTI, Westat, Birch & Davis, and Johnson, Bassin, & Shaw. The Homeless and Transient Population Study is being conducted entirely by RTI staff and interviewers.

C. What were the study's purposes; why was it undertaken?

For almost two decades, the National Institute on Drug Abuse (NIDA) has relied on a series of household and hospital surveys to monitor substance abuse in America. Although this strategy has been useful as a general barometer of drug use, concern has increased that it underrepresents several subpopulations who are more likely to be adversely affected by substance abuse. These populations include school dropouts, adult and juvenile criminal offenders, institutionalized persons, drug abuse treatment clients, pregnant drug abusers, and most notably the homeless population.

NIDA has contracted with the Research Triangle Institute (RTI) to conduct a series of 16 comprehensive studies under the umbrella of a single research study. This effort, called the DC Metropolitan Area Drug Study (DC*MADS), is an attempt to collect data about drug abuse from all of these subpopulations and the household population during the same year in one metropolitan area. The purpose of the study is to better understand drug abuse across these populations, its extent, and its effect on the community. The study will also look at the role of drug abuse treatment, primary care, mental health treatment, and emergency shelter programs in addressing the problems reported by respondents. To the extent that it is successful, DC*MADS will also be used as a model to collect similar data in other metropolitan areas.

The Homeless and Transient Population Study will examine the prevalence, incidence, and consequences of drug use in the homeless population. It will examine the structural, social, and personal reasons why people move in and out of homelessness and the role of drug use in this movement. Data from the Homeless and Transient Population Study will also be used in several other DC*MADS studies, including the School Dropouts, Young Adults, Adult Criminal Offenders, and Juvenile Offenders Studies. Data from the Homeless and Transient Study will be combined with data from the Institutionalized Study to look at mentally ill people and with data from the 1991 NHSDA DC oversample and the Institutionalized Study to estimate metropolitan-wide incidence and prevalence. The Homeless and Transient Population Study Questionnaire will include a section on interpopulation domain movement that will help us interpret movement between the subpopulations of the various studies and the time at-risk in each condition.

This study will also be comparable to several other studies outside of the DC*MADS umbrella; these include the 1990 U.S. Census, a recent study of drug use among DC shelter residents, the NIAAA/NIDA McKinney Demonstration Projects for homeless alcoholics and drug abusers, the NIDA/NIAAA minimum client data set, and an ADAMHA/HRSA evaluation of efforts to link primary care and drug abuse treatment. In each case, these other studies will be used to improve the interpretation of the Homeless and Transient Study and to place its results into a broader context.

D. Who conducted the actual interviews (e.g., homeless people, social services staff, trained interviewers hired by a survey research organization, etc.)? Did they do the interviews in pairs/groups, or alone?

Interviewers are to be sent out in two-person teams. The interviewers will be paid by RTI and will be recruited from people who have either been homeless or worked closely with people who are homeless (e.g., outreach workers, shelter workers). Interviews will be conducted individually unless the respondent requests otherwise.

E. What kind of training did interviewers receive? How long did it last? Did it include practice interviews? At sites similar to those to be encountered in the survey itself?

Training includes both classroom and field work. Initial training will last 3 days and be conducted at RTI's DC office. In addition to the project staff, the trainers will include local homeless service providers, experts on working with special homeless populations (e.g., mentally ill, intoxicated, cognitively impaired), and the security staff. There will also be smaller refresher training courses as needed to address changes and staff turnover. The course will provide an opportunity to: role play interviewers; review and practice procedures for approaching homeless people; review and practice procedures for working with someone who appears to be mentally ill, intoxicated, or impaired in some way; talk about other problem situations; learn about working with homeless people; and review and practice the communication and security procedures.

After the formal training coursework, the supervisors will spend 3 days taking out two interviewer team pairs each day to go over the field procedures. On each day, they will go through: advance scouting and preliminary contact with a shelter; security and screening sweeps; actual street interviews (if possible); shelter sampling; and actual shelter interviewing. The advance scouting will occur on the day before the interviewing.

The training will deal with several special issues that may arise during the study. Foremost of these is the need to maintain the confidentiality of the interviews. Others include a review of backup procedures for breakdowns in communication or sampling procedures; how to handle people who are cognitively impaired either partially or totally; how to handle people who speak little or no English; how to deal with a cluster of homeless people; and how to limit the risk that the interviewer or the respondent might be harmed during the interview.

Because of the Homeless and Transient Population Study's unusual field conditions, considerable attention has been paid to designing data collection procedures that protect both the interviews and the respondents. Several steps will be taken to ensure the safety of both the respondents and the interviewers. These include the use of security planning and training, security personnel, and security equipment and field procedures. Examples of these procedures include (a) involving local community leaders and police in the planning process; (b) conducting interviews during dusk- -a period of slightly lighter skies and low crime; (c) geographically clustering interviewers on any given night; (d) involving local law enforcement officers in planing, training, and monitoring implementation; (e) using modular telephones; (f) using mini fog horns; and (g) using people who have been homeless or worked extensively with homeless people. For both ethical and security reasons, we will also avoid waking people who are asleep when first approached. It should be noted, however, that on March 20, 1990, the Bureau of the Census sent over 18,000 enumerators to over 10,000 shelters and 24,000 blocks with only one incident—a watch was stolen (personal communication with Cynthia Taeuber, August 14, 1990).

F. What geographical areas were covered (which cities, counties, states)?

This study covers the entire District of Columbia metropolitan area as defined by the U.S. Bureau of the Census. This area includes 16 municipalities in the District of Columbia, Maryland (Charles Co., Frederick Co., Montgomery Co., and Calvert Co.), and Virginia (Arlington Co., City of Alexandria, Fairfax City, Fairfax Co., Loudoun Co., Prince William Co., Stafford Co., Manassas City, Manassas Park City, and Falls Church City). All shelters, census tracks, and census blocks in these area have a chance of being in the geographic sample. Any shelter that is located within one of these municipalities will be identified through local lists and working with the Metropolitan Washington Council of Governments' Homeless Task Force contact for each municipality. Every shelter or motel in the frame will have a chance of being selected. Within sampled blocks, only domiciles, areas of criminal activity, closed business establishments, and locked areas will be excluded from screening for the street sample. Exhibit 1 shows the population, number of shelters, number of census tracts and expected density of tracts for each municipality.

G. What was the time period of data collection (one night, over a week's time, over a month's time, what)? How does the time period of data collection relate to the time period the estimate covers (e.g., 1-night or 7-day estimate)? Was it intended as a cross-sectional or longitudinal survey?

The sampling plans are based on a data collection period from February through May of 1991. They involve a temporal sample size of 64 days over the 4-month data collection period at a rate of 4 days per week. The sample will have two components selected from a shelter sample frame and a separate street sample frame. Each of the two sample components will be selected as two independent seasonal samples, one for the winter (February/March) and the other for the spring (April/May). For each of the two sample components, sample units (shelters or blocks) will be randomly assigned to the sample days in the season. The sampling design is summarized in Exhibit 2.

The time period of the data collection is designed so that it can be collapsed to provide an unbiased estimate for April 1, 1990, so that it can be combined with the other DC*MADS studies. It includes separate winter and spring samples to look at seasonal changes in the weather and local regulations. Although the study is primarily designed as a cross-sectional survey, the interview includes information about movement into and out of the area, into and out of homelessness, and the respondent's mother's maiden name and date of birth so that capture-recapture can be done. It also includes a final item on whether the respondent has ever taken the interview before.

Sampling Frame—Locations

A. What locations were included?

The population of inference, defined at a given point in time, consists of individuals who usually lack a domicile or who lacked access to their usual domicile on the night previous to the survey. This population includes both literally homeless people and many who are precariously housed. The Homeless and Transient Population Study has a shelter and street sampling frame and will also draw on data from the other DC*MADS studies. The shelter sampling frame includes private and public emergency shelters, including homes for runaways, homes for domestic violence victims, and subsidized emergency housing in motels or apartments (but not Section 8 housing).

Nonshelter and gray area institutions are being covered by other DC*MADS studies. The Institutionalized Study will cover prisons, jails, mental health institutions, hospitals, and nursing homes. The noninstitutionalized group quarters study (a substudy of the Young Adults Study) will include dormitories, single room occupancy (SRO), and hotel rooms paid for with the occupant's own resources. All of the DC*MADS studies ask respondents about whether they have been homeless and their experiences in the last 12 months.

Other groups of people who may be precariously housed will also be surveyed from frames based on nonresidential institutions, including women giving birth in area hospitals, new drug treatment clients, recent school dropouts, recent criminal offenders, and area school children. In the Homeless and Transient Population Study, we will also be asking about the utilization of emergency housing, soup kitchens, outreach programs (e.g., health care for homeless persons), drug treatment, primary care treatment, mental health treatment, and entitlement programs.

The street frame includes the streets, parks, transportation depots, abandoned buildings, parked cars, parts of highway or public transportation systems, parking garages, railroad boxcars, fields, wooded areas, etc., found in the geographic sample of census blocks. Local community providers and outreach workers will be consulted about hard-to-find locations, and each interviewer team will include someone familiar with where homeless people might sleep.

We are currently seeking an additional item on the NHSDA to identify people who have been homeless. The NHSDA will be oversampling conventional dwellings in the DC metropolitan area so that the data can be combined with DC*MADS.

B. How was sampling frame developed, and its completeness and accuracy (about estimates of size) determined?

There are four types of frames: the temporal frame, the shelter frame, the client frame, and the geographic frame. The temporal frame is a 16- week period centered on April 1, 1991. The shelter sample frame is based on initial lists of facilities with overnight bed capacity that were developed by the Interfaith Conference in 1988 and the Metropolitan Washington Council of Governments. The list was updated by contacting the Council of Governments' Homeless Task Force contact for each of the metropolitan area's 16 municipalities and by following through with other agencies they identified as offering or coordinating emergency shelter. Information on this list was verified with the facility director over the phone to facilitate client sampling and to identify additional recently opened or closed facilities. The client frames are based on a facility roster. In most cases, it is the intake roster, although in motels and apartments it is the registrar and a roster of people in the room. The geographic frame is based on the census tract and block maps.

C. How was selection made from units in sampling frame?

The temporal sample will consist of 64 days at a rate of 4 per week and 32 per season. The shelter sample will consist of 96 shelters stratified by season and number of clients; it will be drawn at a rate of 2 per night in the winter and 1 per night in the spring, with strata size allocated proportional to size and constant sampling within strata. The geographic samples will consist of 64 census tracts stratified by expected density of homeless people and season. Within these tracts, it will consist of 576 census blocks sampled at a rate of 288 per season. These blocks will be clustered and the clusters randomly assigned to the days within the season at a rate of 9 per day. The client samples will consist of 480 shelter interviews and 269 expected street interviews. The shelter respondents will be selected based on systematic samples from the facility's roster following a random start. People encountered on the street between 4:00 and 5:30 am on the sampled morning will be screened and, if appropriate, interviewed; however, people engaged in illegal activities (e.g., prostitution, breaking and entering) and services (e.g., police, taxi drivers, newspaper deliverers) will not be screened. Exhibit 2, previously presented, summarizes the sampling design.

D. What are the biases present in the study's choice of research sites? (i.e., what parts of the homeless population are probably excluded?)

There is nothing typical about the DC metropolitan area that suggests that the results would generalize to every metropolitan area. It does nonetheless represent a considerable range of urban and rural environments and service systems. Within the DC area, the study covers most of the homeless population very well. The design is probably weakest in terms of covering the rural homeless and people doubled-up in regular dwellings.

E. Was any attempt made to oversample any population (e.g., women, minority populations)?

No, but the planned sample sizes are sufficient to look at prevalence rates as low as 1 percent with a 50 percent relative standard error. These are sufficient to look at major subgroups.

Sampling—Respondent Selection

A. How were individuals selected at each site?

Individuals in shelters and emergency facilities will be sampled from one of three types of rosters: an intake roster, a bed roster, or a room roster. Intake rosters are commonly used in large and temporary facilities. Clients will be sampled from them at a fixed rate after a random start. If necessary, interviewers will return in the morning to interview people who came in late. Bed rosters are often used in shelters with stable populations and involve taking attendance from beds or rooms that have been assigned to a particular resident. When this type of roster is encountered, a temporary intake roster will be generated for the sampled night, and clients will be sampled from it as previously noted. Room rosters are commonly used in family shelters or motels. Where it is encountered, the rooms will be sampled, the occupants listed, and the residents sampled at a fixed rate using a systematic sample with a random start.

Individuals encountered in the street sample will be screened to determine if they were housed last night and if they have access to regular housing. Staying in regular housing is not sufficient to exclude someone from the survey. To be excluded, the place where the respondent regularly stays and the place he or she stayed last night must either belong to the respondent or the respondent must have an arrangement to stay there on a regular basis. People moving from place to place, who trade sex for shelter, or who have no regular housing will be included.

The shelter population is defined as homeless. The validity of the street population definition is limited by the self-report methodology and guarantee of confidentiality. No further checks will be conducted, although interviewers will be asked to makes observations about the respondent's dress and demeanor, and full counts will be maintained.

B. How were respondents approached? Who was present (interviewer? escort [what type—off-duty police, another homeless person, etc.], staff of shelter or other agency where interviewing was occurring)?

Shelter respondents will be approached first by shelter staff and then by the interview team. The latter includes interviewers who have either been homeless or worked closely with people who are homeless. Street respondents will be approached directly by the interview team. The interviewers will approach respondents loudly to avoid startling them. If a potential respondent is asleep when approached, the interviewers will back off and wait for him or her to wake up.

C. How was the research explained?

Potential respondents will be asked to consent to the interview after being read a statement explaining the study purposes, showing them a certificate of confidentiality, and assuring them that their answers would be anonymous.

D. Were they paid? How much? How was this explained?

Respondents will be paid $10 for completing the interview. The incentive is explained during the informed consent statement listed above. Respondents interviewed in the morning will also be offered a juice and a pastry to help them wake up and in case the interview keeps them from getting breakfast.

E. Did screening or interviewing occur within the hearing of other homeless people, facility staff, or someone else? If yes, how might this have affected either agreement to participate in the study or answers to particular questions?

Prior arrangements with the shelter operators will be sought to provide a private room or setting for the interviews. If necessary, a van can be brought to the premises. The other interviewer will try to keep other people away during the interview in both the shelter and street settings.

Finding the "Hidden Homeless"

Between 4:00 and 5:30 am, attempts will be made to identify any person in publicly accessible areas in the sampled blocks. This includes public facilities, campgrounds, abandoned buildings, and abandoned cars. People with outreach experience will be used as interviewers in the street component to identify as many hiding places as possible. People who are moving in and out of institutions, who are in treatment or correctional institutions, and who are living with others will be sought through the other DC*MADS studies.

Weighting and Estimation Procedures

A. Were any used? If not, why not?

Weights will be used to provide estimates for the metropolitan area.

B. Describe those used. Please include mathematical expressions/formulae.

Weighting will include sampling weights and nonresponse/eligibility adjustments computed separately for each seasonal component of the street and shelter surveys. Sampling weights will account for sampling of time periods as well as for sampling of tracts and blocks (i.e., for sampling in time and space). The initial analytic weights will be the inverse of the sampling probability.

C. Were any CORRECTIONS made for possible duplicate counting due to: (1) use of more than one type of facility (e.g., soup kitchen and shelter, shelter and health); (2) use of more than one facility of a type (e.g., eats at two different soup kitchens in a day); (3) use of one or more types of facilities although found and interviewed "on the street." Describe them, and their effects on the final count, if possible. If not, could you make these corrections (did your procedures yield the information to make such corrections)?

Multiplicity adjustments will be made to account for multiple probabilities of selection in the two survey components. The interview includes items on the potential overlap between the frames and on the use of shelters, soup kitchens, and emergency facilities.

Respondents will also be asked if they have been interviewed before and to provide their date of birth and mother's maiden name. Along with data on geographic movement and changes in housing status, these data can potentially be used to estimate the unique counts through capture- recapture.

D. Were any CORRECTIONS made for non-response, of facilities (refusal to allow clients to be interviewed) or individuals. Describe them, and their effects on the final count. If not, could you make these corrections (did your procedures yield the information to make such corrections)?

Nonresponse patterns will be examined and potentially lead to statistical corrections.

E. Was any adjustment made for frequency of use over a period of more than one day (e.g., UI's 7-day adjustment). Describe, and its effect on the final count. If not, could you make these adjustments (did your procedures yield the information to make such adjustments)?

Frequency data for the last 30 days are being collected on shelters use, outreach contacts, soup kitchen use, drug use, drug treatment, and employment. Recency of use information is also being collected on primary care treatment, mental health treatment, and entitlements. Information is also being collected on the duration of the current episode of homelessness, the

respondent's current location, the respondent's location on the prior night, the respondent's location at the beginning of the current episode, and the number of prior episodes. Less detailed information on housing status during the last 12 months will be collected from all DC*MADS samples.

F. Did you make any other adjustments or corrections? Please describe.

Not yet.

G. What are the probable effects of weighting procedures, corrections and adjustments on the proportion of the homeless likely to be included in the final estimates?

Not available yet.

H. How were accompanying children dealt with, in the interviews/data collection and in the counts?

Children over the age of 12 will be interviewed if sampled. The interviewer will ask about the respondent's children and other dependents. The study will also be coordinated with a national study of runaway children.

I. To what universe, if any, is sample generalizable? What population or subpopulations are estimated? Could standard errors be computed? Were they computed, or was any other estimation of variance computed? What were the results?

The sample will be generalizable to the population of DC-area homeless people at the specified time frame (April 1991). Separate inferences will be made for the shelter and street subpopulations. Standard errors will be computed taking into account the weights and the sample design.

J. Please describe any special estimating techniques, if you used them (such as capture-recapture).

Capture-recapture has been limited in this area because of the need to estimate the movement of people in and out of the homeless population—both in terms of geography and definition. We plan to attempt a capture- recapture estimate using survey data on geographic movement and changes in housing status to estimate the missing parameters.

References

Burt, Martha R. and Cohen, Barbara E. *Feeding the Homeless: Does the Prepared Meals Provision Help?* Volumes I and II. Washington, DC: The Urban Institute, 1988.

Dennis, Michael L., Iachan, Ronaldo, Thornberry, Jutta S., and Bray, Robert M. *The DC Metropolitan Drug Study (DC*MADS): Homeless and Transient Population Study.* Research Triangle Park, NC: Research Triangle Institute, 1990.

James, Franklin. *Numbers and Characteristics of the Homeless: A Preliminary Application in Colorado of a New Methodology.* Denver, CO: University of Colorado at Denver, Graduate School of Public Affairs, 1988.

Lee, Barrett. "Stability and Change in an Urban Homeless Population." *Demography*, 1989, *26(2)*, 323-334.

Rossi, Peter H., Fisher, Gene A. and Willis, Georgianna. *The condition of the Homeless in Chicago: A Report Based on Surveys Conducted in 1985 and 1986.* Chicago, IL: Social and Demographic Research Institute, University of Massachusetts-Amherst and National Opinion Research Center, Chicago, 1986.

Taeuber, Cynthia M. and Siegel, Paul M. *Counting the Nation's Homeless Population in the 1990 Census*. Washington, DC: U.S. Bureau of the Census, Population Divison, 1990.

Vernez, Georges, Burnam, M. Audrey, McGlynn, Elizabeth A. Trude, Sally and Mittman, Brian. *Review of California's Program for the Homeless Mentally Disabled*. Santa Monica, CA: The RAND Corporation, 1988.

National Survey of Shelters for the Homeless

Abridged Final Methodology Report

Prepared by:

Garrett Moran
David Marker
Alexa Fraser
Sharon Beausejour
Janice Machado

Submitted to:

Division of Policy Studies
The Office of Policy Development and Research
U.S. Department of Housing and Urban Development
Washington, D.C.

Under Contract HC-5772, Task Order 3

Submitted by:

Westat Inc.
1650 Research Blvd.
Rockville, MD 20850

Abridged Version Prepared
November 27, 1990

FOREWORD

This report includes background information, research approach, sample design, survey procedures, and results of fieldwork for Westat's National Survey of Shelters for the Homeless conducted for the U.S. Department of Housing and Urban Development. Both homeless shelters and voucher or contract programs were included in the sample, although, for convenience of presentation, reference will often be made to shelters alone. Shelter managers were cooperative and a 93 percent response rate was achieved.

This report presents the methodology of the survey. Westat provided the complete data set, including final case weights, to HUD. Westat has also supplied projections of capacity and number of shelters for that part of the U.S. population excluded from the frame, calculated using a regression method. A detailed analysis of results was included in a report prepared by the Division of Policy Studies, the Office of Policy Development and Research at HUD. That publication, *A Report On The 1988 National Survey of Shelters For The Homeless*, was published in March 1989 and is available through HUD USER.

Contents

Section Page

FOREWORD 78

INTRODUCTION 80

Research Objectives 80
General Approach 80
Summary of Report Contents 80

SAMPLE DESIGN 81

Universe and Sampling Methods 81
Sample Weighting 82
Estimation Procedures 83
Sampling Variances 84

QUESTIONNAIRE DESIGN 84

Introduction 84
Summary of Questionnaire Issues 85

SHELTER SAMPLING FRAME DEVELOPMENT AND TELEPHONE INTERVIEWING PROCEDURES 85

Shelter Sampling Frame Development Methodology 85
Secondary Sources for Frame Lists 85
Frame List Data Base File 86
Telephone Calls for Frame List Development 86
Frame Finalization Efforts 87
Telephone Interviewing Procedures 87
Data Collection Response 87

GENERAL DESCRIPTION OF SAMPLE CONTACT RESULTS 88

Sample Response 88

Table

1. Number of sampled cities and counties by certainty status and region 82
2. Number of sampled shelters by region and strata 82
3. Number of shelters available for sampling in PSUs by certainty status and region 84
4. Result of contact 88
5. Result of contact by PSU certainty status 89
6. Result of contact by region 89
7. Response rate: Overall, by PSU certainty status, and by region 90
8. Complete rate: Overall, by PSU certainty status, and by region 90
9. Completes and completion rate, by PSU and region 91
10. Completes and completion rate, by city/county and region 91

INTRODUCTION

This report is concerned with a national survey of shelters and voucher programs for the homeless. The survey consisted of telephone interviews with a sample of 205 operators of shelters for the homeless in 65 statistically selected cities or counties around the United States. This report presents the methods employed in the survey, including the sampling plan, the questionnaire, how the lists of the shelter providers in sampled cities were developed, and the techniques used to prepare national estimates of the numbers of shelters and their capacity.

Research Objectives

The objective of the National Survey of Shelters for the Homeless was to assist the Department of Housing and Urban Development (HUD) in assessing local capacity to provide appropriate shelter and services to the homeless population. This capacity assessment would serve as a baseline, thus indicating the context into which the HUD McKinney programs were entering. To obtain this information, a telephone survey was conducted, interviewing a national sample of managers of homeless shelters and voucher programs. Information collected included the operational characteristics and funding of the shelters, their bed capacity, the types of services available to their homeless populations they serve, and some of the characteristics of those who use them. The survey gathered data on funding sources (Federal, state, local government, and private) and operating organizations (public or private).

Information was collected on the characteristics of shelter users to discover which groups were being served. Data was gathered on demographic characteristics, extent of shelter use, employment, and mental health and alcohol/drug abuse.

No effort was made to estimate the numbers of homeless persons, but the survey did obtain statistics on shelter capacities, occupancy and turnaway rates.

General Approach

A sample of 292 shelters or voucher programs from 65 cities or counties was surveyed by telephone, resulting in 205 completed interviews. Sampling design and procedures are further discussed below in "Sample Design." The respondent at each shelter or voucher program was the manager or another person designated by the manager as qualified to respond. For the sake of simplicity in this report, shelters and voucher programs will often be referred to simply as shelters, with any explicit references to one group or the other clearly specified. Calls were placed primarily during normal working hours—9:00 AM to 5:00 PM, Monday through Friday. Westat's Telephone Research Center is capable of calling at other times, and a few calls were placed outside these hours as necessary.

Throughout the study, a premium was placed on rapid response. Immediately after the data were collected and reviewed for quality, coders and key operators produced the electronic data file. Initial edits and checks were conducted and preliminary results obtained within two weeks after the data was collected. A more thoroughly cleaned and edited data set, including the results of rather extensive data retrieval efforts, was available about five weeks after the survey was concluded.

Summary of Report Contents

This abridged report contains five sections. The six appendices included in the original report have been deleted from this abridged version. The second section, "Sample Design," describes the sampling plan and weighting procedures. It explains the two-stage sampling plan employed to select the 65 cities and counties and to select individual shelters or voucher programs in those areas.

Section 3, "Questionnaire Design," provides information on the design and implementation of the questionnaire. Some discussion appears regarding the pretest, the actual use of the finalized questionnaire, the problems encountered, and their resolution.

Section 4, "Shelter Sampling Frame Development..." presents a comprehensive review of the frame development and data collection effort.

Section 5, "General Description of Sample Contact Results," contains information on the interview completion results. These are tabulated to show response and completion rates and final status codes, both nationally and as distributed among census regions and between certainty and non-certainty cities or counties.

SAMPLE DESIGN

Universe and Sampling Methods

There are no comprehensive national lists of shelters for the homeless or of voucher programs providing for shelter in other types of buildings. In order to obtain a sample of shelters for the homeless and of voucher programs, it was therefore necessary to employ a two-stage sampling procedure.

First, a sample of 65 counties or cities was selected from all counties with a 1980 census population of at least 25,000. If a county contained a city of 250,000 or more, the city was given a separate chance of selection into the sample. The remainder of such a county was then sampled based on its population outside of such a city.

The five cities of New York, Chicago, Los Angeles, Philadelphia, and Houston were chosen with certainty. Before the first stage sample selection of the other 60 primary sampling units (PSUs), the list was sorted by census region and then by whether it was a city or a (remainder of a) county. Finally, the PSUs were ordered by size; the measure of size being the larger of either one-fifth of the 1980 census population or the 1980 estimated number of renters (number of renter families from the 1980 census times 2.4 persons per household). This sorting procedure was developed to insure adequate representation of central cities where homeless tend to congregate while providing accurate national estimates. The measure of size was chosen to give added representation to areas with higher incidences of rental property on the assumption that this characteristic is likely to be correlated with homelessness. Within these 65 PSUs, lists of shelters and voucher programs were constructed by consulting the Comprehensive Homeless Assistance Plans (CHAPs) submitted to HUD by local communities and via telephone contacts with local experts.

In the second sampling stage, individual shelters and voucher programs were chosen from among those identified in the sampled PSUs. From the CHAPs, it was initially estimated that there are approximately 4,800 shelters and voucher programs in all counties larger than 25,000. Our 65 sampled PSUs contained 1,509 shelters and programs out of a national estimate of 4,781. Shelters used exclusively for runaways or juvenile delinquents were excluded from the above computations.

From the 1,509 shelters and voucher programs identified in these 65 PSUs, a sample of 292 was chosen. The local experts consulted in compiling the lists of shelters and programs provided estimates of the capacity of most facilities. The 23 shelters estimated to have capacities greater than 300 and the 11 voucher programs serving greater than 100 were chosen with certainty. The remaining shelters and voucher programs were sorted separately by estimated capacity within PSU. Separate strata were also created for those with unknown

capacities. Systematic samples were then chosen from each of these four samples with second stage probabilities of selection inversely proportional to their PSU selection probabilities. The only exception to this was that shelters with capacity of 101-300 had double the probability of selection as those with 1-100 capacity.

Sample Weighting

Since the interviewed shelters and voucher programs are a sample, national estimates based upon their responses are obtained by weighting. In general, this procedure uses the reciprocal of each sampled unit's selection probability and adjustments which compensate for nonresponding out-of-scope units. To determine the selection probabilities we note that one PSU, Los Angeles County, had a large enough measure of size to be chosen with certainty and that the remaining 59 sampled PSUs had selection probabilities less than one. Table 1 shows the number of sampled PSUs by region of the country.

Table 1. Number of sampled cities and counties by certainty status and region

Type of PSU	Region			
	East	South	N. Central	West
Certainty	2	1	1	2
Noncertainty	12	21	14	12

As mentioned earlier, there were four second stage noncertainty sampling strata: shelters and voucher programs of known and unknown capacity. Sample sizes were allocated to the four strata in proportion to their total estimated capacity. To estimate the total capacity for the two strata with unknown sized facilities, a subsample of the frames was contacted. This procedure provided estimates of the proportion of the frame that was truly in scope.

This proportion was then multiplied by an estimated average size of 30 for shelters and 10 for voucher programs. The unknown size strata were oversampled to compensate for the expected 43 percent and 55 percent in-scope rates for shelters and voucher programs, respectively. Table 2 shows the regional distribution of sampled facilities by strata.

Table 2. Number of sampled shelters by region and strata

Stratum		Region			
Shelter/Voucher	Size	East	South	N. Central	West
Shelters	Certainty	15	4	1	6
Shelters	1-300	72	38	42	63
Shelters	Unknown	6	16	9	6
Vouchers	Certainty	1	-	2	3
Vouchers	1-100	1	1	-	-
Vouchers	Unknown	3	-	1	2

When the sampled shelters of unknown size were weighted by their inverse probability of selection estimated from the subsample of the frame, it became obvious that the estmates would be subject to large sampling errors. This was a result of the frame deficiency that caused very large and very small shelters to be colla. ed into one "unknown size" stratum. To reduce this source of variation, it was decided to atte .pt to contact all of the 330 non-sampled shelters of unknown size on the frame from the 65 PSUs to obtain an estimate of their true sizes. This information could then be used to stratify the sample and reduce sampling variability.

We were able to reach 294 (89 percent) of these shelters. Of these, 186 were shelters and the remaining 108 were ineligible for the survey. We assumed that the 36 frame listings we were unable to reach were also ineligible for the survey. Each of the 186 shelters was asked for its bed and cot capacity as a measure of size. This corresponds with question number 6 on the survey questionnaire.

We considered letting the 16 completed shelter interviews from this stratum represent the responses we could have obtained from a census of the 202 (186 + 16) such shelters in the 65 PSUs. Only one of the 16 came from a certainty PSU. The size of that shelter (variable Number 6), was also almost five times larger than the next largest responding shelter from that stratum. Therefore it was decided to make that one shelter represent the 88 non-sampled shelters in that stratum that came from certainty PSUs. The 89 shelters from the certainty PSUs had a total size of 16,869 (ranging from 2 to 1,815) with the one sampled shelter having a size of 540 beds and cots. Thus, this shelter was given a weight of 16,869/540 = 31.2.

The 113 (98 + 15) remaining non-certainty shelters had sizes ranging from 3 to 350 with a median size of 30. They were split into three size strata: 25 or less, 26 to 49, and 50 or more. The corresponding number of shelters were: 52, 33, and 28. Nine of the sampled shelters were included in the first stratum, three in the second, and three in the third. The 52 shelters in the first stratum had a total weighted (first-stage PSU weight) capacity of 6,065.8. The 9 included in the sample had an unweighted total capacity of 132 yielding a final weight of 6,065.8/132 = 46.0 for each of the nine. Similarly the final weights for the other two strata are 99.8 and 120.0 for mid-sized and larger shelters, respectively. These weights are optimal for estimating bed and cot capacity, and also efficient for all other variables that are highly correlated with question number 6.

The above procedure resulted in the following shelter and voucher final weights for the 205 in-scope respondents:

Type of Respondent	*Weight*
Certainty shelter or voucher program from certainty PSU	1.0
Certainty shelter or voucher program from noncertainty PSUPSU Weight 101-300 capacity shelter	7.1
1-100 capacity shelter	14.2
"Unknown size shelter" Certainty PSU	31.2
"Unknown size shelter" non-certainty PSU, 1 to 25	46.0
"Unknown size shelter" non-certainty PSU, 26 to 49	99.8
"Unknown size shelter" non-certainty PSU, 50 or more	120.0
1-100 capacity voucher program	166.5
Unknown size voucher program	81.0

Estimation Procedures

Estimated totals, averages, and proportions were computed by multiplying the responses to the questionnaire by the appropriate weights described in the section, "Sample Weighting," above.

The only exception to this procedure was for estimating the number of shelters and voucher programs for the homeless. This estimate was computed directly from the frame for the 65 PSUs. For each of the four noncertainty strata, estimates of the out-of-scope rate were computed from the second stage noncertainty sample for the combined 59 noncertainty PSUs. These rates were then applied to the frame counts in each of these PSUs to provide estimates for the number of in-scope shelters or programs in each PSU. The same procedure was followed for each of the 6 certainty PSUs based on out-of-scope rates in these PSUs. The national estimate for number of shelters and voucher programs was then computed by weighting the number in-scope in each PSU by the PSUs first stage weight and summing across all PSUs. This procedure provides a more accurate estimate because it eliminates the sampling variance (except in estimating out-of-scope rates) present in other estimates. The distribution of shelters available for sampling is displayed by certainty status and region in Table 3.

Table 3. Numbers of shelters available for sampling in PSUs by certainty status and region

PSU Certainty Status	Region					
	East	South	North Central	West	Total	Percent
Certainty	422	93	106	166	787	52
Noncertainty	207	165	141	209	722	48
TOTAL	629	258	247	375	1,509	100

Data collected from this survey can be used to compare characteristics of shelters that were opened at different times. (For example, are newer shelters more or less likely to be run by religious organizations?) Such comparisons internal to the survey can be made in a straightforward manner. Comparisons between these data and others collected in separate surveys are not so straightforward. In addition to sampling variability, there are many potential sources of nonsampling variability that may interfere with such comparisons. Some examples include question wording, frame development, nonresponse rates, and interviewer training.

Sampling Variances

Sample variances for this study were computed using the Jackknife technique. The 60 PSUs not initially selected with certainty (including Los Angeles County) were placed into 30 variance strata by pairing PSUs in the order they were sorted for their first stage selection (census region, city/[remainder of] county, and size). Separate certainty and non-certainty PSU variance components were then computed for each variable. The variance of an estimate is equal to the sum of these two components.

Non-certainty PSU variance components were then computed using 30 replicates. Each replicate excluded one PSU from one of the 30 noncertainty variance strata. The replicate weights of the shelters and voucher programs in the other PSU in that variance stratum were adjusted to compensate for the dropped PSU. All shelters from the certainty PSUs were included in each of the 30 replicates. The variability of the estimates across the 30 replicates was then used to calculate the non-certainty variance component.

There were 21 non-certainty shelters sampled from the five certainty PSUs (New York City, Chicago, Los Angeles, Philadelphia, and Houston). These were sorted by size within PSU, and the PSUs were sorted using the same factors as noncertainty PSUs. Seven subsamples were then taken by selecting every seventh shelter (1, 8, 15; 2, 9, 16; etc.). In each of seven replicates one of these subsamples was dropped, with the weights of the remaining 18 shelters inflated to adjust for those that were dropped. All shelters from the other 60 PSUs are included in the estimates for each of these seven replicates. The variability of the estimates across the seven replicates was then used to calculate the certainty variance component.

QUESTIONNAIRE DESIGN

Introduction

Westat designed the questionnaire to incorporate questions provided by HUD. Some limited emphasis was placed on obtaining information comparable to that collected in the 1984 HUD Survey of Shelter for the Homeless, but questions were modified, added, or deleted with the primary goal of meeting current informational needs. The instrument was kept as concise as possible, keeping in mind that many shelter managers are very busy. An effort was made to keep the questionnaire simple enough so that minimal reference to records would be required.

The 1984 survey had included shelters only, but the current study attempted to include voucher and contract programs as well. Since voucher programs were to be included in the survey, several questions were addressed solely to those programs, and a few others were appropriate only for shelters. A second version of the questionnaire was developed for the voucher programs, with minimal changes in question wording, skip patterns, and interviewer instructions to help accommodate the unique characteristics of the voucher programs. Copies of the questionnaires can be found in the HUD report on the survey cited earlier.

The shelter questionnaire consisted of 35 major questions. A total of 186 variables were sought. The questions appeared in the following groups:

- Shelter Occupancy/Capacity;
- Shelter Characteristics;
- User Characteristics;
- Services Provided;
- Administrative Characteristics (staffing and funding).

Summary of Questionnaire Issues

In nearly all cases, shelter managers were very cooperative, often elaborating at length on the conditions faced in their shelters. Without exception, there was sufficient interest in the study that a copy of the resulting report was requested.

Most respondents had no difficulty answering the questions. There were variations in the extent to which information appeared to be based on records, as opposed to being based on respondents' best judgement or recollections. One interesting observation made by interviewers at the debriefing session was that there appeared to be a positive correlation between providing a broad range of services and maintaining records on the characteristics of those served. Similarly, informal observation suggested a negative correlation between shelter size and maintenance of records on those served. Where problems arose, data retrieval calls were made to determine the correct answers. Those problems that remained after this effort, thus warranting caution in interpreting the data, have been highlighted in the section above.

SHELTER SAMPLING FRAME DEVELOPMENT AND TELEPHONE INTERVIEWING PROCEDURES

The design of the National Survey of Shelters for the Homeless required that, for each sampled city or county, a list of shelters and voucher programs be assembled to serve as the shelter sampling frame. The process by which this was accomplished is the first topic of this chapter. Following that discussion is a presentation of the methods employed during the telephone interviewing process.

Shelter Sampling Frame Development Methodology

As indicated in the "Sample Design" section, there are no comprehensive lists of shelters for the homeless in the United States. This fact necessitated a two-stage sampling design. In the first stage a statistical sample of 65 cities or counties (henceforth referred to as primary sampling units, or PSUs) around the nation was selected. Stage two required the development of a list of shelters and voucher programs for the homeless in each of these 65 PSUs. The result was a listing file of some 1,509 shelters and voucher or contract programs located in the 65 PSUs in the sample.

Secondary Sources for Frame Lists

In all cases possible, the starting point for list development was to consult the following secondary sources:

- **Comprehensive Homeless Assistance Plans (CHAPs)**: CHAPs are locally written plans for the care and support of homeless persons that must be submitted to HUD in order for a community to be eligible for McKinney Act funding. While the content and quality of these plans vary, many of them do contain some form of list of the shelters and other services currently available in their communities. For the majority of the 65 PSUs, this secondary source was used as a starting point in obtaining a list of services for the homeless. Even those CHAPs that contained no such listing proved useful, as the office that submitted the CHAP to HUD was used as a contact for obtaining names of shelters or programs. CHAP authors were also contacted to determine if shelters or programs had opened since the document was submitted, and to get additional information on shelters already in the CHAP.

- **HUD Phase I Shelter System Essays**: As mentioned in the Introduction, HUD staff recently visited the five largest metropolitan areas in the nation to assess the status of programs and services for the homeless. Their observations and conclusions were outlined in a series of essays. For the five cities for which an essay was available, this source was reviewed to obtain names of shelters and voucher programs.

Frame List Data Base File

After review and elimination of list entries not meeting the prevailing definition of a shelter or voucher program, the secondary source lists were keyed into a computer data base file. When available, the information entered into the data base file included the following:

- The name of the shelter or program;
- One or more contact person(s) at the shelter or program;
- One or more telephone number(s);
- A measure of size, defined as the bed count in the case of shelters, the number of vouchers distributed in a day in the case of voucher programs, and the dollar amount of checks written out in a day in the case of contract programs;
- The location of the shelter or program;
- Codes for the type of person served by the shelter or program (men, women, families etc.);
- Codes indicating whether a record on the file contains information on a shelter, voucher or contract program, or referral service (referral services were used as contacts to obtain additional names of shelters or programs); and
- A comments section used to enter information such as the address of the shelter or program, whether it accepts individuals that are not eligible for the survey in addition to individuals that are eligible, an alternate name for the shelter or program, or any other pertinent information.

Telephone Calls for Frame List Development

Neither the CHAP nor the HUD essays were available for a substantial number of PSUs, and even if they had been, it was critical to verify and update the information. Telephone calls to local homeless experts were used for this purpose. These calls were an important source of names of shelters or programs. If the number of shelters or programs was small, interviewers recorded the lists or updates to existing lists during the phone conversation. In the case of large PSUs with many shelters, lists were sent to Westat via facsimile machine or collect overnight

transport service. If we had a copy of a list in our possession, contacts included positive identification by local area experts that the version in our possession was the most current and complete list available. Any updated information was recorded.

Key agencies routinely contacted in each PSUs included the Salvation Army, Traveller's Aid, United Way, Social Services, Community Welfare Agency, and the Coalition for the Homeless. These agencies were asked to supply the names of shelters or programs in their city or county. When the agency was unable to supply the names of any shelters or programs, they were asked for the names of referral services or other contacts that might be more knowledgeable in the area.

Frame Finalization Efforts

After the data for this survey were collected, when the weights for each type of respondent were being developed, it became obvious that the estimates for sampled shelters of unknown size would be subject to large sampling errors. This was the result of large and small shelters being collapsed into one "unknown size" stratum.

In response to this problem, on December 1, 1988, two telephone interviewers were trained to conduct frame finalization calls. After training, each telephone interviewer was provided a script and call record forms, and was instructed to attempt each of the 330 shelters of unknown size that were listed on the frame as many times as was possible during the two weeks of the data retrieval effort.

Once each shelter of unknown size was contacted, the shelter manager or other responsible party was asked for the number of beds and cots in the shelter. This answer was then recorded on the call record, and the case was considered completed. All telephone interviewer paperwork was reviewed by a senior member of the project team.

After the frame finalization calls were completed, the newly determined size of shelter field was included in the frame, and new sample weights were determined. For a description of how these weights were developed and assigned see section on "Sample Weighting" above.

Telephone Interviewing Procedures

Once frame development was completed and the sample of shelters and voucher programs was selected, Westat Telephone Research Center interviewers were charged with contacting shelter managers and completing the survey instrument. A set of interviewing procedures were specifically designed for the National Survey of Shelters for the Homeless. These procedures included instructions for making assignments, recording outcomes, processing the interviews and performing quality control checks.

Data Collection Response

The telephone interviewers were an experienced and professional group. They were persistent in their efforts to locate and contact respondents, and highly successful in obtaining cooperation. There were very few first refusals and all of the interviewers were well versed in conversion techniques designed and employed by our Telephone Research Center so they were able to convert most refusals immediately, resulting in only three final refusals. The brevity of the field period—August 23, 1988 to September 22, 1988—did result in a moderate number of non-respondents. If the initial contact occurred late in this time period, a single vacation or medical problem might result in the interviewed being unavailable for participation. We compensated for this problem by providing supplemental samples in order to insure adequate numbers of completed cases.

GENERAL DESCRIPTION OF SAMPLE CONTACT RESULTS

Sample Response

This section will review the results of contact and interview with the sampled shelters or voucher programs by certainty status, region, and overall. This section will also discuss problems encountered during the field interviewing phase of this survey.

From our experience with the pretest and the 1984 survey, we expected respondents would be eager to cooperate with HUD's effort to collect information about shelters and voucher programs for the homeless. Table 4 shows the result of our contact with all 292 sampled shelters. Interviews were completed with the managers or their designated respondents for a total of 205 sampled shelters.

Table 4. Result of contact

Result	Number
Complete	205
Out of scope	53
Nonrespondent	12
No contact	10
Duplicate	9
Refusal	3
TOTAL	292

Of the 292 shelters, 53 fell out of scope. This number was a good deal larger than expected, and was the chief reason that two supplemental samples had to be selected. There were a variety of reasons for the out-of-scope frame entries, often associated with the broad assortment of facilities included on the CHAP lists. For example, there was one daytime drop in center for the homeless that did not permit persons to stay overnight, permanent housing programs (3), mental health/mental retardation treatment programs (4), personal or other care homes (9), drug and alcohol rehabilitation centers (4), food banks (2), juvenile shelters (3), referral services (3), closed shelters (2), and some 22 miscellaneous others that were not shelters included on the lists.

Twelve shelters or programs were contacted, but no appointment could be scheduled to complete the interview within the field period. Reasons for respondent unavailability included vacations, hospital stays, and plain busy schedules. If the initial contact was made late in the field period, little time remained to schedule and complete an interview.

There were 10 shelters with which contact was never made. Standard procedure in such cases was to re-contact the original list source to verify the information initially obtained, then follow up on the revised contact information. This process was successful in reducing the original number of shelters classified as not locatable by the Telephone Research Center (TRC) staff. Call backs to list sources determined that 15 of the 25 shelters originally classified as not locatable were in fact out-of-scope, often because they had closed.

Nine shelters or programs were duplicates, and the survey information regarding them was obtained and included among the 205 completed interviews. The number of duplicates is also an artifact of the list development methodology. If there was any chance that a listing might represent a unique shelter, the entry was left in the frame. Only three contacts resulted in refusals that our Telephone Research Center staff, using standard Westat refusal conversion procedures, were unable to convince to participate.

Tables 5 and 6 show the result of contact by certainty status and by region respectively. Noting Table 5, it is clear that the effort to contact and complete the interview was more successful across the board in non-certainty PSUs. One likely reason for this fact is that the smaller number of shelters and programs for the homeless found in these areas of smaller population made it more likely that correct information on the status and character of the program was available.

Table 5. Result of contact by PSU certainty status

Result of contact	PSU Certainty Status		Total	Percent
	Certainty	Non Certainty		
Complete	40	165	205	70.2
Out of scope	15	38	53	18.2
Nonrespondent	7	5	12	4.1
No contact	5	5	10	3.4
Duplicate	2	7	9	3.1
Refusal	-	3	3	1.0
TOTAL	69	223	292	100.0

Table 6 reveals no great regional variation. The percentage of completes was somewhat lower in the Northeast and South, with most of the differences attributable to variations in the numbers of out-of-scope shelters or programs.

Table 6. Result of contact by region

Result of contact	Region				Total	Percent
	East	South	North Central	West		
Complete	64	38	45	58	205	70.2
Out of scope	23	11	7	12	53	18.2
Nonrespondent	4	4	1	3	12	4.1
No contact	3	3	1	3	10	3.4
Duplicate	4	1	1	3	9	3.1
Refusal	-	2	-	1	3	1.0
TOTAL	98	59	55	80	292	100.0

Table 7 presents the overall response rate, and breaks down the rate by certainty status and by region. An overall response rate of 93.2 percent was achieved. Response rate is defined here as the number of completes over the eligibles (the sum of completes, refusals, and nonrespondents). This formula for calculating the response rate is illustrated below:

$$\frac{\text{Completes}}{\text{Completes, Refusals, Nonrespondents}}$$

Table 7 shows the response rate overall, by certainty status, and by region. The response rate was notably lower among the larger certainty cities or counties. When examined by region, we find that the North Central had the highest response rate, at nearly 98 percent. Response rates in the Northeast and West were nearly identical, while the South's rate was somewhat lower.

Table 7. Response rate: overall, by PSU certainty status, by region

Response rate by	Completes	Complete, refusal nonrespondent	Percent
Overall	205	220	93.2
PSU			
Certainty	40	47	85.1
Noncertainty	165	173	95.4
Region			
Northeast	64	68	94.1
South	38	44	86.4
North Central	45	46	97.8
West	58	62	93.5

Table 8 shows the completion rate overall, by certainty status, and by region. An overall completion rate of 89.1 percent was obtained. While this is slightly lower than the response rate, both measures suggest a robust survey. The completion rate is a more conservative measure that takes into account the possibility that shelters not contacted were potentially in scope. This rate is based on the formula:

$$\frac{\text{Completes}}{\text{Completes, Nonrespondents, No Contacts, Refusals}}$$

Tables 8, 9, and 10 show that there is a strong relationship between certainty status and the completion rate. Certainty PSUs had a lower completion rate than did the smaller PSUs, with a margin of difference of nearly 16 percentage points. The pattern with respect to regional differences is similar to that observed with the response rate. The North Central region's completion rate, at 95.7 percent, was nearly 15 points above that of the South. The Northeast and West regions each had rates of about 90 percent.

Table 8. Completion rate: overall, by PSU certainty status, by region

Response rate by	Completes	Complete, refusal no contact, nonrespondent	Percent
Overall	205	230	89.1
PSU Certainty status			
Certainty	40	52	76.9
Noncertainty	165	178	92.7
Region			
Northeast	64	71	90.1
South	38	47	80.9
North Central	45	47	95.7
West	58	65	89.2

Table 9. Completes and completion rate by PSU and region

Region	PSU						
	Certainty		Noncertainty				
	N[1]	Sample[2]	N	Sample	Total N	Sample	Percent
Northeast	20	27	44	44	64	71	90.1
South	3	5	35	42	38	47	80.9
North Central	5	5	40	42	45	47	95.7
West	12	15	46	50	58	65	89.2
TOTAL	40	52	165	178	205	230	89.1

[1]N = Number of interviews that were completed.
[2]S = The total number of shelters available for interview.

Table 10. Completes and completion rate by city/county and region

City	City		County				
	N[1]	Sample[2]	N	Sample	Total N	Sample	Percent
Northeast	30	37	34	34	64	71	90.1
South	14	21	24	26	38	47	80.9
North Central	22	24	23	23	45	47	95.7
West	25	29	33	36	58	65	89.2
TOTAL	91	111	114	119	205	230	89.1

[1]N = Number of interviews that were completed.
[2]S = The total number of shelters available for interview.

Overall, these figures indicate a successful effort. In general, the respondents were very cooperative. There was a large number of out-of-scope cases due to the quantity of inaccurate information found on the CHAP lists and other frame sources, but this problem was effectively addressed by supplementing the sample and making appropriate statistical adjustments. There were a few other problems encountered, but with the exception of the few cases noted in the section on "Questionnaire Design," all were adequately addressed by aggressive data retrieval call back and editing. In summary, there is every reason to believe that the resulting data base should provide a great deal of valuable information about shelters for the homeless in the United States in late 1988.

Counting the Nation's Homeless Population in the 1990 Census

Cynthia M. Taeuber and Paul M. Siegel
Population Division, Bureau of the Census

Contents

	Page
INTRODUCTION	93
PROCEDURAL DECISIONS	94
A. Goals and Uses of the Data	94
B. Designing a Procedure	94
WHO WAS TO BE INCLUDED IN S-NIGHT	97
A. Why the Census Bureau Did Not Define "Homeless"	97
B. Define Locations, Not People	97
HOW THE LISTS OF SITES WERE COMPILED	98
WHAT THE PROCEDURES WERE	99
A. Phase I — Shelters	99
B. Shelters for Abused Women	99
C. Phase II — Streets, Abandoned Buildings, Places of Commerce, and Open Public Locations	100
WHAT HAPPENED ON S-NIGHT	100
A. The Media	101
B. Hiring Census Takers	101
C. Training and Payment	101
IMPRESSIONS OF DATA QUALITY	102
A. The Count in Shelters	102
B. The Count of Persons Visible in the Street	102
C. Coverage of "Doubled-Up Families"	104
PUBLICATION OF DATA	105
A. Data Shown for Selected Locations	105
B. Types of Data Available	105
CONCLUSIONS	106
A. Should We Have Conducted S-Night?	106
B. How Did We Do?	106
C. What Lessons Did We Learn?	107
GLOSSARY	108
APPENDICES	110

INTRODUCTION

The 1990 Census did not count "the homeless." There is no census question that identifies persons as homeless per se. Instead, the 1990 Census made special efforts to include homeless persons in the count. We also attempted to preserve data about persons counted in special operations for locations that were highly likely to include homeless persons.

Homelessness drew major national attention during the 1980's when advocates and service providers reported the homeless population was growing and included more families. Information about the numbers and characteristics of the nation's homeless population remained very uncertain. We did not know how fast the homeless population was growing. We did not know in what parts of the country it was growing fastest. And we knew little about the characteristics of the homeless population nationally.

Homeless persons are part of the population. The Census Bureau's task is to count the entire population. Also, demand for data about the homeless as a population group arose at Census Bureau meetings with other Federal government agencies and at Local Public Meetings held in every state as a part of the decennial census planning process. Persons expressed thoughts similar to the poetic language of Abraham Lincoln when he said, "If we could first know where we are, and whither we are tending, we could better judge what to do and how to do it."

Homeless persons are likely to be missed through traditional decennial census methods and thus form part of the undercount the Census Bureau wanted to reduce. Thus, we had two aims: reduce the undercount and meet public demand for information about homeless persons. The Census Bureau began in the mid-1980's to plan methods to meet these goals. Homeless persons were included in previous censuses.[1] The 1990 census was, however, the first time that we worked so extensively with local areas to separately identify the locations where homeless persons stay. It was also the most extensive effort we have made to improve coverage of this particular population subgroup.

In this paper we will describe how we decided on the 1990 census procedures, what the procedures were and who we included in the different operations. We particularly want data users to know the limitations of the data. And finally, we will share some anecdotes about what happened on "Shelter and Street Night" (S-Night), March 20/21, 1990. This paper will not provide any numbers. We won't have the numbers until late 1991. A glossary of census terms is provided at the end of the paper.

This paper will expand upon the following six important considerations about the 1990 count of persons in selected locations where homeless persons stay:

1. There is no generally agreed-upon definition of "homelessness" and the 1990 Census did not impose one. Thus, the 1990 census includes homeless persons but does not specifically label anyone as "homeless." Data users may choose to infer that most people in specified locations, such as emergency shelters or visible in the street, are homeless.

2. The counts we will provide are defined by the operations that produced them — special efforts to include *all* persons in shelters for the homeless on March 20 and visible on the streets in the early morning hours of March 21, 1990. The locations were identified by local governments and other local people. Their lists supplemented information from national administrative records.

3. The methods we used to include the homeless missed an unknown number of homeless persons such as those hidden at night, persons in sites not known to us, and persons who were mobile during the night of our canvass.

[1]The Census of 1880 reported about 22,000 "outdoor paupers." The 1980 Census included homeless and highly transient persons in at least two separate operations. There is, however, no estimate of the number of homeless persons in 1980. In 1980, in the "M-Night" (Mission Night) operation, census takers interviewed persons until midnight in shelters, low-cost transient quarters, all-night movie houses, bus and railroad stations, and local jails. There were no procedures specifically designed to count persons living on the streets or in open public places. The closest was the 1980 "Casual Count" daytime operation which was conducted after the census during the summer in selected large central cities. Only persons 15 years and over were interviewed. Census takers interviewed people in pool halls, employment offices, food stamp centers, welfare offices, and designated street corners. The census takers asked the people at those sites if they had a usual place of residence outside of the city; if they said they did, the interview was ended. If not, census takers asked if they had been counted in the 1980 census; only if they said "no" were they asked to fill out a census form. About 51,000 persons were counted in the M-Night and Casual Count operations together.

4. An unknown number of "homeless persons" were counted in other aspects of the census — in conventional housing units or in institutional group quarters.

5. The Census Bureau will provide data on several subpopulations which might be regarded as selected components of the homeless population. Users must deliberately and explicitly decide which to include for their own purposes.

6. The Census Bureau is not aware of any valid basis for extrapolating from the selected components of the homeless population we identified and counted in the 1990 census to the true homeless population of the United States.

PROCEDURAL DECISIONS

Goals and Uses of the Data. The overriding purpose of the decennial census is to determine how many Congressional Representatives each state will have. A primary goal of decennial census procedures is to attempt to count everyone. We count those who live in housing units, those who live in group quarters, and those who have no usual home. We count people in urban and rural settings. We count children and adults. We try to count every person whose usual residence is in the United States on Census Day.

Use of the census for the allocation of funds requires the application of uniform methodologies across the nation. Most funding formulas for programs that benefit homeless persons depend on differences in the relative numbers, not the absolute numbers, of homeless populations among areas. Thus, uniform counting procedures throughout the country are crucial to the extent that they are subject to similar relative errors everywhere. The consistency of the procedures of a census throughout the country is one of its major advantages.

Counting homeless persons in a decennial census is a large and cumbersome process. Compared with a specific survey of homeless persons, a decennial census has major constraints on procedural choices. For example, in a census, the interviewers are new employees. New employees must be trained but cost considerations constrain training. Procedures have to be as simple and straightforward as possible. We consider the safety of both the census takers and the respondents. Census questions are basic and limited to those that are asked of everyone — there can be none specific to homeless persons. We must protect the confidentiality of the information provided us. The census is essentially a snapshot of a particular day, not a movie over a period of time. Thus, we must accomplish the count quickly.

Designing a Procedure to Include Homeless Persons in the 1990 Census. In arriving at procedures which could be employed in the 1990 Census, we drew on our own experience and testing as well as the expertise and research of numerous people:

- Census Bureau field staff who had experience in counting people in shelters.
- We made informal telephone calls to service providers around the country to gain a dose of reality and learn about the diversity in shelter arrangements around the country.
- Review of alternative methodologies for estimating the size of the homeless population as well as discussions with some of those who conducted the research.[2]
- In April, 1987, we convened a meeting of principal investigators and persons who had actually been on the streets counting ho less persons in Nashville, Chicago, Baltimore, Washington, D.C., and Boston (see Appe A).
- Tests of basic methods in the April 1988 Census Dress Rehearsal in downtown St. Louis, Missouri and a comparison of the nighttime procedure with an experimental daytime procedure in downtown Baltimore, Maryland in June 1989.

[2]Many studies are listed in: Government Accounting Office, *Homeless Mentally Ill: Problems and Options in Estimating Numbers and Trends*, Report to the Chairman, Committee on Labor and Human Resources, U.S. Senate, GAO/PEMD-88-24, August 1988.

We learned that estimates of the size of the homeless population ranged from 250,000 to three million.[3] The studies relied variously on expert opinion, administrative records from service providers, and on the standard statistical methods of surveys and censuses.[4]

There was no widely accepted operational definition of "homelessness." The literature suggested that living arrangements of homeless persons and the kinds of services offered by communities differ widely across the regions of the country and also between rural and urban areas. Living arrangements included everything from public and charitably provided shelters to subsidized rooms to sleeping in open public sites and in abandoned buildings to relatively permanent, well hidden sites.

There were additional complications. We learned that many shelters in the South close by April 1st — Census Day. We were impressed over and over with the difficulties inherent in counting homeless persons who live on the street, in abandoned buildings, and in public locations not intended for habitation. We discovered that there was no widely recognized method for identifying who was homeless, either by observation or through screening questions that could be used in the context of a decennial census. We learned that concerns for interviewer safety had led to approaches varying from having off-duty police accompanying the interviewers to reliance on unobtrusive observation.[5] And we also learned there were significant differences among cities in estimates of the ratio of persons in shelters to those living on the streets with little basis for confidence in any of the estimates.

Our discussions made it clear that we should encourage people familiar with the homeless, as well as homeless people themselves, to apply to work as census takers. We knew the more such people were on our staff, the better the enumeration was likely to be. We also knew that we had no guarantee we would have enough people familiar with the homeless population to rely solely on them. We had to design procedures for those census takers who had no experience with homelessness and street life.

Given the state of knowledge at that time, the coverage goals of the decennial census, and the constraints and concerns faced in taking a census, a nighttime approach along the lines of that used in Nashville (counted visible street persons) formed the basis for the 1990 census method. The 1990 census would be a count of persons when they move about the least: in the evening at shelters, where many homeless persons stay, and in the early hours of the morning for those visible in the street and open public locations. Census takers would count everyone they observed in the street, without attempting to identify "the homeless." As in Nashville, census takers would count persons who stayed in abandoned buildings only if they emerged from the buildings in the early morning. We decided to canvass shelters and street sites in March, before the closing date for shelters in the South. We openly acknowledged that this method would not produce a complete count of homeless persons, but it appeared feasible and manageable within the context of the decennial census.

---

[3]The Government Accounting Office (GAO) report (*op.cit.*, Chapter 2) considered estimates based on expert opinion to be technically weaker than other methods. Such studies are subjective, tend to lack geographic precision, and vary in the kinds of experts chosen and how representative they are of a region. GAO considered censuses and surveys of specific geographic areas to be the most sound. See Appendix B of the GAO report for their list of options for counting homeless persons and the biases associated with particular methods.

[4] (1) In 1984, the Department of Housing and Urban Development used expert opinion to estimate 250,000 to 325,000 homeless persons in shelters or on the streets on an average winter night. See U.S. Department of Housing and Urban Development, Office of Policy Development and Research, "A Report to the Secretary on the Homeless and Emergency Shelters, Washington, D.C. 1984. This study was criticized by Richard Appelbaum (University of California, Santa Barbara) for using estimates for selected cities and then applying the estimates to much larger Ranally Metropolitan Areas which includes both central cities and outlying suburbs (2) Mitch Snyder and Mary Ellen Hombs used expert opinion to estimate 2.2 million persons (the number was later increased to 3 million). This study mixed point-in time counts with extended-period counts; some of the estimates were for cities and others for entire metropolitan areas. See *Homelessness in America: A Forced March to Nowhere* Washington, D.C.: Community for Creative Nonviolence, 1984. (3) Martha Burt and Barbara Cohen of the Urban Institute conducted a 1988 study for the Department of Agriculture's Food and Nutrition Service in cities of 100,000 or more population. From their survey data, they estimated that nationally, on one night, about 108,000 people used shelters in large cities. They then made assumptions about the rate of homelessness in cities of less than 100,000, towns, and rural areas and an assumption that shelter- to-street ratios were constant across cities. From the initial data for large cities and their assumptions about other areas, they estimated that 500,000 to 600,000 persons lived on the streets and in shelters. See *Feeding the Homeless: Does the Prepared Meals Provision Help? Report to Congress on the Prepared Meals Provision*, Washington, D.C.: Urban Institute, 1988.

[5]Peter H. Rossi,*et.al.*,*The Condition of the Homeless of Chicago*, Amerherst, MA: Social and Demographic Institute, University of Massachusetts, 1986; Barrett A. Lee, "Health Care and the Homeless of Nashville; Dealing With a Problem Without Definition," *Urban Resources* 2 (Winter 1985), pp. 17-23.

Once we announced the general plans for 1990, many persons asked us why we were not going to soup kitchens and other places where homeless persons receive services. There were significant barriers to this seemingly sensible approach:

1. This approach would require the Census Bureau to determine an operational definition of "homeless" and reliably identify persons as "homeless" separately from those with homes. While those who use services are poor, they are not necessarily homeless. A study by the Urban Institute found that on average, more than half of those who use soup kitchens said they had access to regular housing.[6] Thus, we could not assume that all clients at service facilities should be included and we would have had to distinguish the "homeless" among them.

2. At the point when we had to decide on a method, researchers did not have proven questions that could identify persons who slept in shelters or on the streets, which were needed so that counts from shelters and soup kitchens could be unduplicated. We needed questions that would help us avoid counting persons more than once[7]. In Chicago, Rossi[8], used screening questions to determine if persons encountered on the street were literally "homeless" but the questions were not tested to be sure they screened out only people with homes.

3. Many homeless people use multiple services. Thus, we would require some means of assuring that persons were not counted more than once. We had no basis for relying on respondents to tell us that they had already been counted. Also, by claiming to have been interviewed, they could avoid an interview. Matching and unduplicating census reports for individuals among all the service providers and shelters in an area was not feasible.

4. Homeless persons do not use services every day. It seemed we would have to canvass the service centers over a longer period. That would, however, greatly increase the volume and difficulty of matching.[9]

We refined our procedures, office operations, and training programs in two field tests — the St. Louis Census Dress Rehearsal, in March 1988, and a further test of S-Night procedures in Baltimore in June, 1989. In these tests we relearned the difficulty and operational impossibility of trying to determine homelessness by observation, by asking "are you homeless," or by asking if a person had a "usual home elsewhere." We also discovered a powerful inclination on the part of the interviewers on the street to count *only* persons they thought "homeless" no matter what our instructions said. And we were reminded of the crucial importance of stressing our need for lists of street sites where the homeless congregate *at night* .[10]

---

[6] Martha Burt and Barbara Cohen, *Feeding the Homeless: Does the Prepared Meals Provision Help?*, Report to Congress on the Prepared Meal Provision: Volumes 1 and 2, the Urban Institute, Washington, D.C. October 1988. In most cities in this study, about 50 to 60 percent of those given services said they had homes; in a few cities, it was as high as 80 percent.

[7] In June 1989, in a portion of downtown Baltimore, Maryland, the Census Bureau's Center for Survey Methods Research (CSMR) conducted an experimental test of methods for counting homeless persons in service facilities. In conjunction with a field test of 1990 S-night procedures, we attempted to enumerate all persons found in daytime facilities providing services likely to be utilized by homeless persons. We tested methods of obtaining information with which to unduplicate census reports for persons enumerated in more than one facility. We also tested questions about where people usually spend the night and where they spent the preceding night, which might be used to distinguish homeless people from people with access to regular housing. Preliminary analyses suggest it may be possible to use enumeration in service facilities as one of the tools for counting the homeless although matching persons across service sites is a significant problem, especially in large cities. We have evidence that a service count includes a large proportion of persons eligible for enumeration in other census operations. Even if these methods had been perfected by June of 1989, they could not have been implemented in the 1990 Census at that late date. (See Bureau of the Census, P.C. Campanelli, M.T. Salo, L. Schwede, and B. Jackson, "The Accuracy of Self Reports: Some Preliminary Findings From Interviewing Homeless Persons," paper for May 1990 meetings of the American Association for Public Opinion Research. Also see P. Campanelli, M. Salo, and L. Schwede, "Research on Enumerating Homeless Persons: Results of a Census Bureau Test of Alternative Methods," paper for August 1990 meetings of the American Statistical Association.)

[8] Rossi, *Ibid*.

[9] The Burt and Cohen (*op.cit.*) study showed that a one-day count is lower than a seven-day count in both soup kitchens and shelters.

[10] George J. McCall, Ronald M. Denowitz, and Michael C. Stein, "A Participant Observation Study to Evaluate Procedures for Enumerating the Homeless in the St. Louis Dress Rehearsal," September, 1989. Final report prepared under a Joint Statistical Agreement with the Center for Survey Methods Research, Bureau of the Census.

After the St. Louis test, and to some degree after the Baltimore study, we corrected the field manuals and changed some procedures. We emphasized the instructions to census takers to count everyone they saw, regardless of whether they thought they were homeless. The only people we told them not to count were persons in uniform (such as the police) or those engaged in obvious money-making activities (this could include legal activities but it was also a well-understood euphemism for prostitution and drug dealing).

In a letter to local governments (see discussion below and Appendix C), we emphasized that we wanted the governments to list street locations where homeless can be found *at night*. In St. Louis, the street count was conducted between midnight and 6 a.m. For the census, we changed this to 2 a.m. to 4 a.m. to reduce the chance of counting people on their way home late at night, jogging in the early morning, or on their way to work (casual labor pools form on the street corners of some cities as early as 4:30 a.m.). This change meant that we had to hire more census takers than originally planned so that the same workload could be done in one-third the time.

WHO WAS TO BE INCLUDED IN S-NIGHT

Why the Census Bureau Did Not Define "Homeless." There is no generally agreed-upon definition of homelessness. There are meaningful differences among definitions of "homelessness" depending on one's political views, programmatic needs, and values about family, housing, and independent living.[11] The Census Bureau is a statistical organization, not a policy-making body. We did not try to impose a definition on what is a hotly debated concept. Instead, we will provide data with operational definitions from which users can include or exclude different groups according to their particular needs.

Define Locations, Not People. The 1990 Census will provide counts and characteristics of persons found at the time of the census in pre-identified, selected types of locations. Our first effort was to compile a complete list of shelters, street sites, abandoned buildings, and open public locations where "homeless persons" might be found in the evening and early morning. We allowed local practices for housing homeless persons to determine whether a location should be classified as an "emergency shelter" or as some other type of noninstitutional group living quarters.

We did not try to decide whether individuals were "homeless." We instructed census takers to count everyone they saw (with the exceptions mentioned above and staff members who lived elsewhere). They were told not to ask people whether they considered themselves homeless or the length of their stay at the location of the interview. We will publish:

- the number of persons counted the evening of March 20th in sites listed as shelters for the homeless as the population of *"emergency shelters for homeless persons."*
- the number of women and their children counted the evening of March 20th in shelters and safe houses intended for victims of domestic violence as the population of *"shelters for abused women."*
- the number of persons enumerated during the early morning hours of March 21st at street sites, abandoned buildings, and open public locations provided by local people as places homeless persons were likely to congregate as *"persons visible in street locations."*

[11]To most people, the homeless population includes at least those who sleep in the streets at night or who live in emergency shelters or subsidized housing because they do not have regular access to conventional housing. They are obviously and literally homeless. Even here, however, there is not universal agreement about who to include. Some persons stay at a shelter for only a night or two because of domestic disputes or violence. Others have small monthly incomes and stay in cheap rooms part of the month and in shelters the remaining days when money is low. Some data users include in their definition of "homeless," families doubled up with others in conventional housing. Others include those "at risk" of losing their homes because they have unsteady incomes or spend a large portion on the cost of housing. Some data users would include all persons in single-room-occupancy (SRO) units even though the people living there may not consider themselves to be homeless. Definitional ambiguities such as these contribute to differences in counts of "homeless" persons.

- a separate count of persons who reported they had "no usual home elsewhere" during regular census operations in (a) *"homes or halfway houses for drug/alcohol abuse"*; (b) *"maternity homes for unwed mothers"*; (c) *"agricultural workers' dormitories"* which includes migrant farm workers; and (d) *"other nonhousehold living situations"* which includes transient locations such as commercial campgrounds.

- tabulations of characteristics, such as poverty, of persons in conventional housing for related subfamilies and unrelated individuals. This will permit an operational definition of the concept, "doubled-up families" (see also section on "Publication of Data," below).

HOW THE LISTS OF SITES WERE COMPILED

Before S-Night, staff of the Census Bureau's Decennial Planning Division compiled a national list of shelters from administrative records. These records included, for example, national lists from the Federal Emergency Management Administration, the Union of Gospel Missions, the National Network of Runaway and Youth Services, Salvation Army facilities, the 1982 HUD list of shelters, and the 1985 Battered Women's Directory. Additional work was done to include shelters and safe houses for victims of domestic violence (see section on "What the Procedures Were," below).

We added to the initial list developed from national sources by asking local officials for help. Census Regional Offices sent certified letters (Appendix C) to the highest elected official of over 39,000 local (including 3,141 counties) governments (both urban and rural). We requested that they provide a list of shelters and street and open public locations (including abandoned buildings) where they knew homeless persons stayed at night. There was a range of efforts among cities in putting the lists together. New York City, for example, had a large committee of government and private agencies and did some advance studies of street locations. In some areas, persons who work with the homeless and homeless persons themselves gave us additional locations.

The final lists included the major shelters, hotels and motels receiving subsidies, shelters that would be open only on March 20th for the express purpose of improving the count, and shelters unlikely to appear on administrative lists, such as temporary shelters and shelters in church basements. There were no administrative lists available for street sites and open public locations such as parks, places of commerce, and transportation terminals. They were identified entirely by local officials and local persons familiar with the places homeless persons stay. We asked for a complete list by January 1990. In fact, district offices accepted additions to the street and shelter lists up to March 20th and to the shelter list even after March 20th.

Homeless persons were attributed to the jurisdiction where they were found. For federal funding formulas and congressional and state representation, they become part of the total population for the area where they were on March 20/21. Thus, many governmental units saw S-Night as an opportunity both to reduce their undercount and gain information about their homeless population. Over 14,200 governmental units responded. Out of approximately 1,400 local governmental units of 50,000 or more total population, twenty-five[12] did not respond to the certified letter. In these cases, the district offices contacted knowledgeable local people to compile lists. All district offices and all cities of 50,000 or more participated in S-Night. In places less than 50,000, we did not instruct the district offices to compile a list if the local area did not provide a list. In such cases, some district offices put their own list together anyway. We will know how many small towns and rural areas chose to participate when we tabulate the data.

[12] They are: Compton, Norwalk, Santa Cruz, South Gate, Moreno Valley, Rialto, and Oxnard, California; Taylor, Michigan; Lorain, Ohio; Gresham, Oregon; Sparks, Nevada; Lawrence, Massachusetts; New Britain, Connecticut; Warwick, Rhode Island; Bayonne, Camden, Clifton, East Orange, Elizabeth, Trenton, Irvington Township, and Middletown Township, New Jersey; and Bensalem Township, Brixton Township, and Upper Darby Township, Pennsylvania.

WHAT THE PROCEDURES WERE

We divided the operations for S-Night into two phases, the operations for shelters and the operations for the streets.[13]

Phase I — Shelters. Census takers were sent to pre-identified emergency shelters and hotels and motels used to house homeless persons on the night of March 20, 1990. We made provisions to follow up at any shelters that we missed or did not complete on March 20th. Usually, shelter enumeration was between the hours of 6 p.m. and midnight. The rules were flexible enough to allow some variation in those times if specific situations required it. For example, "welfare hotels" in New York City were counted the morning of March 21st rather than the night of March 20th. The major consideration in allowing variation was whether persons were likely to be counted twice.

We expected that most people would complete their own questionnaires. Census takers could aid anyone who needed help although time was a problem. Census takers were supposed to give one of every six persons a long-form questionnaire which included social and economic questions and basic demographic questions.[14] Five in six people were asked only basic demographic questions. The questions were not specific to homeless persons. They were the same population questions (except for the relationship of family members[15]) that we asked the rest of the American population.

Census takers did not ask persons at the pre-designated sites if they had a usual home any other place. Thus, we cannot guarantee that every person counted at a shelter was actually "homeless." There is nothing to show, however, that this is a significant issue.

The growth in the number of homeless families is a particularly important policy question. The census process in group quarters does not easily lend itself to identifying family groups because there is no question on family relationships in group quarters. Census takers were asked to list adults with children under age 15 with adults first and then the children.[16] Later, in data processing, the computer will link children under age 15 to the nearest prior adult in the computer file. The tabulations will show the counts for emergency shelters of "adults with children under 15." The necessity of forming these groups by computer linking means that only one adult will be assigned to a child; we won't be able to determine cases where both parents were present.[17]

Shelters for Abused Women Had Special Procedures. S-Night included shelters for victims of domestic violence. Our aim was to maintain strict confidentiality of the addresses of the shelter, keep the identity of the women and their children secret, and keep to a minimum their contact with Census Bureau employees. We also wanted to provide a count of people who stayed at such shelters. In consultation with the National Coalition Against Domestic Violence (NCADV), we developed four options (Appendix E) for counting persons staying at the shelters on March 20, 1990. The NCADV told their members of the options and encouraged them to participate in the census. Because they were not required to give their names, the women and their children could have been counted in the census twice if they were at the shelter on March 20th and if someone listed them on the census form sent to their household. We do not know how often

---

[13] Bureau of the Census, "Operation Requirements Overview: 1990 Shelter/Street Night and Transient Night Enumeration," *1990 Decennial Census Informational Memorandum No. 91, Revision 1*, January 19, 1990. This memorandum provides an overview of S-Night operations and copies of the forms used in the operations.

[14] There were reports that the questionnaires were often handed out purposefully to those who appeared willing or able to fill out the long form rather than according to the procedures for a systematic random sample.

[15] On a household questionnaire, household members are asked their relationship to one another. The questionnaire for group quarters, however, is called an "Individual Census Report" (ICR) and only has space for one individual. There is no question on relationship since people in most group quarters, such as nursing homes, prisons, and college dormitories, are rarely related family groups.

[16] For all practical purposes, "adults with children under 15" is a related family but census takers did not ask a direct question about relationship. Thus, it is entirely possible that some "adult with children" groups are not related and therefore not "family" in the usual sense of the word.

[17] An unscientific, nonrandom sample of ICR's in several large, east coast cities, and discussions with some census takers, revealed that normally the children had only an adult woman, presumably their mother, with them.

this double counting happened. We decided there was a greater chance of missing them than counting them twice. Thus, we counted them at the shelters and safe houses to be sure they were part of the total population count for an area.

Phase II — Streets, Abandoned Buildings, Places of Commerce, and Open Public Locations. Enumeration at the street sites, in places of commerce, and open public locations, took place from 2 a.m. to 4 a.m. on March 21, 1990. Census takers were assigned specific sites and were told to count persons only at those sites (for example, to prevent double counting, they could not cross a street to count persons if that area was not part of their assignment). Census takers asked basic demographic questions only (that is, only the short form was used which asked age, sex, race, marital status, and Hispanic origin). Social and economic data will not be available for the street population. If a census taker did not feel an interview situation was safe, or if a person was sleeping (which was often the case), they could estimate age, sex, and race by observation without interviewing the person.

Census takers waited outside of pre-identified abandoned and boarded-up buildings from 4 a.m. to 8 a.m. to count people who left the building. They also tried to obtain the age, sex, and race of any others who might still be inside the building. We had census observers in some cities, and generally they reported that few persons were seen emerging from abandoned buildings.

The procedures for Phase II told census takers to count everyone they saw out in the open at the sites they were assigned. The only exceptions to this instruction were persons in uniform (such as the police) or those engaged in obvious money-making activities other than begging or panhandling. We are aware that some prostitutes and some drug dealers are homeless. Nevertheless, we did not want census takers to be involved in legal problems or misunderstandings about their intent and so enumerators were intentionally instructed to exclude such people from the count on S-Night.

We also knew that some persons with a home might be out on the streets. Given the hours and parts of the cities we were in, we thought that the danger of an overcount was small in most places. Although the night-life in a few cities, such as New Orleans and Las Vegas, is continuous, most of the city officials we talked with did not consider this to be a major problem. We instructed the district offices to send census takers to red- light districts and other busy areas closer to 4 a.m. than to 2 a.m. to reduce the likelihood of counting persons with homes.

Safety for both the census takers and the respondents had to be an important consideration. Because of confidentiality, we could not use police escorts, so the enumerators worked in teams. In some regions, census takers wore vests that said "CENSUS TAKER" in large letters. For both Phase I and II, we told census takers to approach people cautiously and respectfully and not to awaken anyone who was asleep. Safety was our consideration when we told census takers not to search through cars, climb on roofs or into dumpsters, or enter abandoned buildings.

WHAT HAPPENED ON S-NIGHT

There were unexpected side effects of the effort to include the homeless in the census. There was enormous media attention that started with the census and expanded to stories about area homelessness in general. Many local governments learned a great deal about their homeless population. Service providers and city officials worked together with the mutual aim of getting good coverage in the census. We heard of churches which were temporary shelters on S-Night to ensure that people would be counted that later decided to provide shelter and food to the homeless on a continuing basis. Some census takers had not been familiar with homelessness before S-Night. Some talked about their new attitudes towards the homeless as they came to see them more as individuals than as vague news stories. Some homeless persons thanked the census takers and said that participating in the census made them feel a part of the country; they wanted the government to know they existed.

Two important goals for S-Night were complete coverage and safety. More than 22,600 census takers and crew leaders participated directly in S-Night. They visited nearly 10,600 shelters and more than 24,300 street sites and open public locations. Thankfully, safety proved to be less of an issue than anyone had imagined. The presence of the press on the streets was probably a help in this respect. No one was hurt, although there were a few minor incidents.

The Media. Census staffs in Washington, in the regions, and locally were besieged for months with inquiries about every aspect of S-Night. Many homeless persons knew about the census because of all the press attention. One census taker, whose zeal exceeded his instructions, told of looking through some caves and finding a homeless man who had made coffee for the census people he was sure would visit him eventually. Another census taker climbed through a drain pipe to find a man who said he had been hoping the census people would be able to find him. Both had read about the census in the newspaper. Others called Census District Offices to let us know where to find them. Of course, knowledge about the census was far from universal among the homeless.

The Census Promotion Office developed a "media plan." Its aim was to inform the media of the S-Night operation, allow them to ask questions, help them get a story, but ensure that confidentiality was maintained for homeless persons. Under Title 13 of the U.S. Code, we must protect the confidentiality of the persons we interview. Just as persons with homes are entitled to answer the questionnaire in privacy, homeless persons are also entitled to privacy under the law. We used the analogy of the voting booth to explain the rules of confidentiality. The press was free to interview willing homeless persons before or after the count but not during, just as they could not take their cameras into the voting booth. We held press conference in every region and nationally and arranged interviews with willing census takers.

Usually, census takers followed their instructions to stop the enumeration if the media would not leave. We told them to return later when the media had left. In some cases, we were unable to complete the count until the next day because of the media. Some homeless persons did not want anyone to see them on television or in the newspaper. In these respects, some of the press had a negative impact on the count. In other respects, much of the media had a positive role in helping people to know about the census in general and what S-Night was in particular. The public debate helped us to answer questions and learn about local concerns in advance of the operation. We wanted people to understand both the uses and the limitations of the count and the press often helped with that.

Hiring Census Takers, Including Homeless Persons and Those Familiar With the Homeless Population. Everyone (including homeless persons) who applied to be census takers had to meet the same employment criteria (see Appendix D). For example, all persons had to be physically fit to complete the enumeration and be able to read and write well enough to fill out the questionnaire and follow instructions. All persons (not just the homeless) were subject to a criminal records check. If Census Bureau officials determined an individual was an unacceptable risk to public safety, we did not hire him or her. Minor violations were not likely to disqualify a person from consideration. In some areas, homeless persons were sworn in as guides to help find the places listed for street enumeration.

At this point, we don't know what percentage of the census takers were either homeless or persons who had provided services to homeless persons. A study of S-Night by Statistical Support Division of the Census Bureau will provide this and other information. We do know that in many of the larger district offices, a fair proportion of the census takers were either homeless persons or service providers and therefore street wise. Many were there because they believed they could help homeless people by lending their experience to the effort of getting a good count. It was clear from the reports of observers that these people made a difference on S-Night. They had valuable knowledge that improved the count and helped to keep people safe.

Training and Payment. S-Night census takers spent about a day in training and administrative matters related to their employment and pay. The training consisted of verbatim presentation of materials prepared by the Census Bureau's Field Division. The training covered the full range of procedures, definitions, and examples of the types of situations we anticipated census takers might encounter. Some people felt the time was not sufficient but since the job took only one evening, we could not justify several days of training. A problem was that census takers had little chance for the best training — actually doing the job. By the time they gained experience, the job was over.

Payment to the census takers varied across the country, usually from about $5 to $8.50 per hour. There was also a $50 bonus for successful completion of the assignment.

IMPRESSIONS OF DATA QUALITY

The Count in Shelters. Our preliminary view is that overall, the count within shelters went well. The staff of most shelters helped census takers make sure everyone at the shelter was included in the count. There have been several opportunities to get a sense of the quality of the shelter count. For example, we went back to shelters after March 20th if we were told about problems and the population in group quarters was reviewed by local officials as part of the local review process.

We also feel confident that we enumerated nearly all shelters. The media focused much attention on the few shelters which refused to cooperate. In the end, only a handful denied entrance to the census takers. In those cases, census takers went to the shelters in the early morning and counted people as they left, estimating age, sex, and race as best they could. After March 20th, there were scattered reports of shelters that census takers missed or did not count completely. The district offices assigned census takers to go back to those shelters. Our goal was to be sure everyone was counted.

Local areas had a second chance to tell us if we missed any shelters during post-census local review. Of course, there may be significant differences in the amount of the work done by particular local areas. We are publishing the counts for shelters down to the block level so that local people can study the coverage and counts in detail.

To assess the coverage of shelters (that is, how complete the lists of shelters were that were used for the actual count), the Census Bureau contracted with William Friskics-Warren of the Council of Community Services in Nashville, Tennessee to find and coordinate work with researchers in a nationally representative sample of 45 district offices (including rural areas). These researchers were asked to develop independent lists of shelters for their areas. Census Bureau staff will compare the independent lists of shelters with the lists Census district offices used on March 20th to assess coverage of our list of shelters. This was done under a Joint Statistical Agreement with the Census Bureau's Center for Survey Methods Research. There are no formal assessments of coverage within shelters.

Coverage is not the only source of error. A place may be enumerated correctly but errors can be made in processing the data. For example, there may be errors in keying the data or the place may be misclassified (that is, the code that would identify the place as a shelter or street site or some other type of group living quarters may be wrong). Publication of the data at the block level will enable local areas to identify such errors.

The Count of Persons Visible in the Street and Open Public Locations. The street population was the most difficult to count and was limited to those who were visible to census takers in the places identified in advance by local officials and occasionally, by district office staff. The locations included places such as transportation stations, abandoned buildings, river beds, all-night movie houses, caves, and ocean breakwaters. Observers reported that sometimes the locations were not specified well enough for census takers to find them. It is likely that the quality of the lists varied among cities. The Census Bureau has no systematic assessment of the quality of the lists of street sites, however.

By design, we did not enumerate the homeless who were well hidden, moving about, or in locations other than those identified by local governments or other local sources. The Census Bureau has no basis for estimating their number.

When people think of the number of people living on the streets, they usually have in mind what they see in the afternoon or evening, not 2 o'clock in the morning. Such impressions offer no basis for evaluating the census street count. Some census takers familiar with the habits of homeless persons, reported their belief that fewer than the usual number of people were out and visible on S-Night. Factors that could have affected the street count include:

1. unusually cold, wet weather in many parts of the country which forced people to seek protection from the elements and reduced the likelihood of a census taker seeing them on the streets[18] (those who went to shelters were likely counted, those who hid on the streets were probably not);

2. the presence of the media;

3. variation in the quality of the lists (that is, the types of sites listed and the specificity of the directions so census takers could find the location) provided by the cities;

4. distrust or fear of the census by the homeless;

5. failure of some census takers to follow instructions, or to find the locations; and

6. special efforts made in some cities to encourage people to get off the streets and to enter shelters where they could be counted more easily.[19]

The ratio of shelter-to-street population in the census must *overstate* the true ratio of homeless persons in shelters to homeless persons "on the streets" on a typical night in Spring for two reasons: (1) the number of persons in shelters was probably higher[20] on S-Night than is usual for March, and (2) we counted only the visible part of the total population on the streets.

Through Joint Statistical Agreements, the Census Bureau contracted with researchers to independently assess how well census takers followed the procedures during the street count. The assessments took place in five cities. They included parts of the three cities of Los Angeles, New York City, and Chicago, and all of Phoenix and New Orleans.[21] Observers were placed at a random sample of approximately 30 S-Night street sites in Census district offices in each city (in New York City, there were 60 sites). The observers reported on (1) whether census takers came to the block; (2) how and if enumerators conducted interviews once they were there; (3) the behavior and number of persons at the site before, during, and after the interviewers' appearance; and (4) whether the observers were interviewed.

A disturbingly large number of observers in the five assessment district offices reported that they were not interviewed or that they did not see census takers. At this point, it is premature to draw conclusions from these studies about the quality of the counts of persons visible in the street. The observers' reports must be compared with the census counts, which will not be compiled and released until after census data are released in late 1991. Limitations to the counts of the observers will be detailed along with those for the census counts. There are uncertainties right now about the observers' reports. First, we do not know how accurately observers estimated the number of people at street sites. Second, census takers counted some visible street people by observation so not being interviewed does not necessarily mean a person wasn't counted. Third, at some sites, observers may have been unaware of the presence or activities of census takers. As a case in point, one observer reported that no census taker showed up to count several hundred people at an all-night movie theater. In fact, census takers worked with the night manager and census reports were returned for that site. Until we

[18]March 20, 1990 proved to be an unusually cold night in many parts of the country. Maps provided by the National Weather Service show that temperatures were generally below normal and much of the eastern half of the United States and the Northwest had rain or snow (Appendix F).

[19] These efforts included opening temporary shelters and providing transportation to take street people to shelters on S-Night. Thus, some people who would otherwise have been on the streets were in shelters on the night of March 20th.

[20]Temporary shelters were open and we received reports from many cities that their regular shelters were filled which may have been a result of the weather as well as efforts to bring people in for the census count.

[21]The Principal Investigators who conducted the research were James D. Wright and Joel A. Devine of Tulane University (New Orleans); Kathryn Edin of North Park College (Chicago); Michael Cousineau and Thomas Ward of the Los Angeles Homeless Health Care Project (Los Angeles); Louisa R. Stark of the Community Housing Partnership (Phoenix); and Kim Hopper of the Nathan Kline Institute for Psychiatric Reserach (New York). These studies will be available from the Census Bureau's Center for Survey Methods Research as soon as they are accepted as final. The Census Bureau's full report on assessment of S-Night will be ready after Census data become available.

compare the actual census counts with the reports of the independent observers, there is no basis for assessing the street count. Even if these comparisons can be made, it will not be valid to extrapolate results from a District Office to an entire city, or results from five cities to the nation as a whole.

These assessments cannot tell us how complete the count of the *total* street homeless population was. They did not include an estimate of the hidden or those moving about and were not designed to provide such estimates. The method is relatively new and we won't know for certain if it can give us information about the adequacy of the count of persons "visible on the street" in these sites and cities. We do expect, however, to gain valuable information for planning future efforts.

Our preliminary view is that caution should be exercised with the "visible in the street" counts. From observation reports and the reports of the independent observers in five assessment cities, we know that some census takers did not follow the instructions to try to interview everyone they saw. Some census takers asked people if they were homeless and some just made their own decisions. Others correctly counted everyone they saw except those in uniform or engaged in obvious money-making activities. Some conducted full interviews and others counted people but didn't attempt an interview (they just filled in age, sex, and race based on their observations). As the procedures anticipated, many people were asleep and some were not in a state of mind to be interviewed. Some census takers did not walk the streets as instructed and instead, canvassed the areas from the safety of their cars.

It is difficult to look at specific instances where enumerators failed to follow their instructions and project how that affected the overall count of persons visible on the street. Even though such stories (from various sources) are generally unsubstantiated, there were enough to cause concern. We recommend that local areas review at the block level the "visible in the street" counts to determine how usable the street data are for their particular area. This experience points out not only the difficulty of counting on the street but also the difficulty of evaluating data quality for this particular part of the census.

In New York City, observers returned to the streets for several nights after S-Night to compare the counts of persons over several nights. This could provide insight into how the census itself may have affected the presence of homeless persons on the street, as well as the variability of the numbers and composition of people on the streets on different nights.

The independent researchers also conducted focus groups with homeless persons. The aim was to get a sense of what homeless persons knew about the census and how they reacted to the enumeration.

Coverage of "Doubled-Up Families" in Households. Doubled-up families are sometimes afraid that officials will find out they are illegally doubled up. It is also possible the person filling out the census form did not read the directions to include persons staying there temporarily. The Census Bureau put in place a number of procedures to contend with this problem.[22] For example, the public outreach program emphasized the confidentiality of the data, census takers were trained to look for and ask about extra people, and there were several questions on the census forms designed to list all members of the household and mention anyone they weren't sure should be listed. We don't know how successful these efforts were yet. From the Current Population Survey,[23] we know that the number of related subfamilies has doubled, increasing from 1.2 million in 1980 to 2.4 million in 1988. The number of unrelated subfamilies increased from 360,000 to 537,000. We do not know whether our efforts were successful in enumerating these people.

It isn't clear at what point a "doubled-up family" is homeless. The conceptual vagueness makes tabulation difficult. Persons may be doubled up because they cannot afford or temporarily do not have their own home, some can afford rent but are saving up to buy a house, adult children may enjoy the amenities of their parents' home, some are elderly and in poor health, and so on.

[22] Bureau of the Census, "The Enumeration of Doubled-Up Families," 1990 Decennial Census Policy Memorandum No. 22, December 28, 1989.

[23] Bureau of the Census, "Households, Families, Marital Status, and Living Arrangements: March 1988 (Advance Report)," *Current Population Reports*, Series P-20, No. 432 (September 1988), Table 6.

PUBLICATION OF DATA

Data Shown for Selected Locations. As part of its publication program the Census Bureau will provide data for groups of persons living in selected locations. Locations relevant to the issue of homelessness include:

a. *"Emergency shelters for homeless persons"* with sleeping facilities[24]

b. *"Shelters for abused women"* includes the women and any children staying with them

c. *"Visible in street locations"* [25]

d. Persons with no usual home living in group homes for: *"maternity homes for unwed mothers"; "homes or halfway houses for drug/alcohol abuse"*[26]; *"agriculture workers' dormitories"*; and *"other nonhousehold living situations"* which includes transient locations such as commercial campgrounds.

e. Persons living doubled up in households.[27]

There is also relevant housing information from the 1990 Census. Census tabulations will include objective indicators of housing quality. These include persons per room, presence of complete plumbing facilities, age of structure, complete kitchen, source of water, and method of sewage disposal. The census includes no direct evaluations of housing quality. It will give a clue of how difficult it is for Americans to find housing at affordable prices. The census collects information on size of family and age and number of children. It also includes housing characteristics such as value, rent, number of bedrooms, monthly costs, and ownership of the unit. These data, when related to family income, will provide information on the economic burden of providing shelter for all types of households. We will show the percentage of household income spent on housing costs and determine the number of "single room occupancy" units (SRO's).[28]

Types of Data Available. Counts of persons for "emergency shelters" and "visible in the street" will be available first on the computer file, Summary Tape File 1 (STF1), and in related publications. STF1 is scheduled to be released in late 1991 on a state-by-state basis. The counts for these two location types are shown under the heading "group quarters population." The smallest level of geography for STF1 is a block.

The specifications for Summary Tape File 2 are not yet final. We propose to show counts by sex, race, and Hispanic origin down to census tracts for:

---

[24] These include: emergency shelters for homeless persons; subsidized hotels/motels used to house homeless persons, regardless of cost; all hotels/motels costing $12 or less per night (regardless of the length of stay and whether the people regarded themselves as "homeless"); temporary overnight shelters for runaway and homeless youth; churches that house homeless persons overnight; sites ordinarily classified as "noninstitutional group quarters" which the city said housed mostly homeless persons (this included YMCA's in some cities, but only if the city classified it as such); and any site set up by the local area as a temporary shelter, even if open only the night of March 20, 1990.

[25] Includes persons counted at pre-identified locations in the street, at places of commerce such as train and bus stations, persons emerging from abandoned and boarded-up buildings, and those seen at open public locations.

[26] If such a place is a hospital or a ward in a psychiatric or general hospital for drug/alcohol abusers, we classify it as an institution and we cannot include it as a location where homeless persons stay.

[27] We count households during the regular census. The census form has instructions to include any persons staying in the household on April 1 who did not have a usual home elsewhere. We will classify households by the presence of (1) related subfamilies, (2) adults other than a spouse, child, or parent related to the householder, and (3) unrelated roomers. We will produce tabulations for these groups according to poverty status. This will provide inferential data about doubled-up households. We will not be able to determine family groups if the subfamily reference person is not related to the householder. We can only say that an adult(s) and child(ren) under age 15 are present who are unrelated to the householder. Children under 15 unrelated to the householder are not included in the poverty universe. Additionally, the poverty status of adult members of an unrelated subfamily is based on the income of each individual alone, not the family income. This makes for an overestimate of poor unrelated individuals and an underestimate of poor children. In the Current Population Survey (CPS), we can identify unrelated subfamilies. The 1988 CPS indicates there were 2.9 million subfamilies and the persons in four in five subfamilies were related to the householder. There were 7.4 million persons in subfamilies and 1.4 million were not related to the householder. Of the 1.4 million, less than 0.6 million were children under age 15. About 60 percent of these children lived in poor families (these children would not be part of the poverty universe in the census). The March 1988 CPS poverty rate for related subfamilies was 55.6 percent; for unrelated subfamilies, 52.6 percent.

[28] This is based on the number of rooms in housing units cross-classified by rent. Current estimates indicate that SRO's represent about one percent of all housing units.

*Emergency shelters (with sleeping facilities) for homeless persons;
*Shelters for abused women (shelters against domestic violence or family crisis centers with sleeping facilities);
*Shelters for runaway, neglected, and homeless children;
*Visible in street locations; and
*Persons with no usual home who were counted in:
—Group maternity homes for unwed mothers
—Group homes or halfway houses for drug/alcohol abuse
—Other nonhousehold living situations not listed by local areas as part of S-night (includes public campgrounds, campgrounds at race tracks, fairs and carnivals, hostels, and similar transient sites)

Other census publications and computer files will show demographic, social, and economic characteristics of these special populations. As of this date, we do not have definite decisions about what will appear in which products. The most detailed data (but limited geography) will appear in the Subject Report for Group Quarters, sometime in 1993. If there is additional funding from outside the Census Bureau, there is the possibility of a special report with more detailed tabulations.

CONCLUSIONS

Should We Have Conducted S-Night? Some told us the task was impossible. Some said it couldn't and shouldn't be done. But homeless people are a part of the country and entitled to be part of the record of our history. We can't dismiss people because they are hard to find and interview. And Americans across the country lent their time, knowledge, imagination, and good will to the effort.

How Did We Do? We think we had an effective method that was practical within the constraints of a decennial census. We believe our efforts gave us a good start towards achieving our goal of a full and fair census of the American people. We won't know for sure how we did until we see data and the results of our assessments. We do think we counted a great many persons. We went to the places local experts told us that homeless people stay. We think we had the most comprehensive list ever compiled of the nation's permanent and temporary shelters. We are having independent researchers help us assess that belief. If we did a good job covering shelters, we will have counted many homeless persons. In any case, we will have added people to the census who otherwise would have been missed.

We do, however, have concerns about the count of persons visible in the street. There is a general sense from some census takers familiar with the homeless population that fewer seemed to be in their customary spots than usual. It was not a typical night. The weather was generally bad, the media were out in great force, and temporary shelters were open. In addition, the preliminary information from census observers and the five assessment areas indicates that there may have been overall problems in how well census takers implemented their instructions. We won't know for sure until we can compare their reports with actual census data, but the reports do raise questions. Unlike shelters, nothing could be done about the street count after March 20th because conditions change so much over time. There were not the same opportunities to check the counts we received. Our advice is that each area should use the block-level data we provide to study and assess the counts for persons visible in the streets. The quality will probably vary among cities.

There is much focus on the size of the count of the homeless that will result from the 1990 Census. We are often asked what we will do if the count is "low." We have known and said from the beginning that we would not achieve a complete count of "the homeless." We cannot ensure how others use census data. We have, however, made every effort to be sure that information about data limitations are available to all data users. Staff have met with many groups to explain limitations (see Appendix G for the summary provided before the census) and census publications will carry a statement on data limitations.

We have included and recognized in the census selected major components of the homeless population. There are other aspects to the census, however. The 1990 Census is an opportunity to get a clearer idea of the demographic diversity of homeless persons and differences among areas of the country.

What Lessons Did We Learn? If we knew then what we know now, what would we have done differently? We'll probably add to the list below once we see data, but here are a few thoughts from staff involved in S-Night:

- It would have been useful if our procedures had included a visit to street and shelter sites the day before S-Night. We did telephone ahead to shelters, but going to the sites would have been better. Census takers would have had a chance to find the locations and "see the lay of the land." That would help them decide how to organize the enumeration. At shelters, we could have met with the shelter operators to answer questions, agree on how the census takers would conduct their work, and how to handle media inquiries. The census takers could have found shelter and street locations during daylight hours rather than in the dark of night. This would have significant budget implications, of course, but would have been operationally useful.
- Semantic imprecision has been a barrier in conducting studies on the homeless population. There are different needs which means there will be multiple definitions. Statisticians could provide more useful information if legislators, program administrators, and advocates got together with the statistician at early stages of data development to determine definitions appropriate to the data needs for a particular survey.
- We hope that other researchers will give high priority to continued research on finding questions that validly screen the "homeless" from the "homed." It is hard to convince enumerators to interview everyone they see when they think they are on a mission to count "the homeless."
- Find additional ways to convince the media and the public that S-Night is not a count of "the homeless" so unrealistic expectations are not created.

And finally... we believe that the focus and extensive attention we gave to S-Night and the extensive help given at the local level will provide national, usable data that have not been available before. We encourage review and use of the data but with due attention to the limitations and the definitions used.

Glossary of Terms

BLOCK	A geographic area bounded on all sides by features that outline an area of land. The features may be visible such as railroad tracks, rivers, or a street, or invisible such as a county line or property line.
DISTRICT OFFICE	The census office responsible for the collection of the census data for a specified area.
FOSTER CHILDREN	Nonrelatives of the householder who are under age 18. No other nonrelative can be listed in the household who might be the child's parent. They are included in the category, "roomer, boarder, or foster child" in census tabulations.
GROUP QUARTERS (GQs)	All persons not living in households are classified as living in GQs. This includes two general categories: (1) institutionalized persons; and (2) other persons in GQs (noninstitutional GQs).
HOUSING UNIT	A house, apartment, mobile home or trailer, a group of room or a single room occupied as separate living quarters. In separate living quarters, the occupants live and eat separately from other persons in the building and have direct access from outside the building or through a common hall.
HOUSEHOLDER	One person in each household is designated as the householder. Usually, this is the person, or one of the persons in whose name the home is owned, being bought, or rented and who is listed as the first person on the census form. There are family householders (lives with relatives) and nonfamily householders (lives alone or with nonrelatives only).
INDIVIDUAL CENSUS REPORT	A census form (short and long forms) used to count persons individually in group quarters. The form asks the same population questions as does the household questionnaire except that relationship to a householder is not asked and no housing questions are asked.
INSTITUTION	GQ location for persons under formally authorized, supervised care or custody, such as prisons and local jails; juvenile institutions; nursing, convalescent, and rest homes for the elderly and dependent; or homes, schools, hospitals, or wards for the physically handicapped, mentally retarded, or mentally ill. Patients or inmates are counted at these locations at the time of the census, regardless of their length of stay or if they have a usual home elsewhere. They are generally restricted to the institutional buildings and grounds or must have escorts or passes to leave. They are generally under the care of trained staff with responsibility for their safekeeping and supervision.
LAST RESORT	Minimum information required for a census form to be considered acceptable after all efforts to gain complete information have failed. On S-Night, the last resort questions were age, sex, and race.

NONINSTITUTIONAL GQ	All GQ population not in institutions. There must be 10 or more persons unrelated to the householder in the unit (otherwise these living quarters are housing units). These include rooming houses; group homes for the mentally ill, mentally retarded, the physically handicapped, homes or halfway houses for drug/alcohol abuse, maternity homes for unwed mothers, and other group homes such as large communes; religious GQs; college dorms; military quarters; agriculture workers' dorms; other workers' dorms; emergency shelters with sleeping facilities for homeless persons, shelters for runaway, neglected and homeless children, persons visible in the street on S-Night, shelters for abused women; dorms for medical personnel; crews of maritime vessels; staff residents of institutions; and other nonhousehold living situations such as persons with no usual home elsewhere living at campgrounds, YMCA's, racetracks, fairs, and carnivals.
SUBFAMILY	The following type of family groups living in a household related to the householder or the householder's spouse: (1) a married couple counted in the same household who may have children living with them; or (2) one parent with one or more never-married children under 18 years old.
UNRELATED INDIVIDUAL	(1) A householder living alone or with nonrelatives only; (2) a household member who is not related to the householder; or (3) a person living in a GQ who is not an inmate or patient of an institution.
USUAL HOME ELSEWHERE	A question asked to determine if a person or family is residing somewhere other than their usual residence on Census Day. This question was not asked on S-Night and is not asked in institutions. It is asked in most, but not all, noninstitutional GQs.

Appendix A

Experts Attending Meeting on Counting Homeless Persons
Bureau of the Census
April 3, 1987

1. Nashville, Tennessee

   Barrett Lee
   John Lozier
   Kathleen Monahan

2. Baltimore, Maryland

   Charles Cowan

3. Chicago, Illinois

   Peter Rossi
   Sara Loevy
   Marva Lopez-Griffin

4. Boston, Massachusetts

   Susan Tracy
   Donna Brown
   Deborah Chausse

5. Washington, D.C.

   Frederic G. Robinson
   Juana Martin
   Leonard Bivins

Options for Counting Homeless Persons

Source of bias	Social indicators	One-time key informant survey	Shelters census: One-time	Shelters census: Multiple	Ongoing statistical reporting: Shelters	Ongoing statistical reporting: Shelters and streets	One-time census of shelters, streets, and institutions	Multiple census: Shelters, streets, and institutions	Multiple census: Shelters, streets, and institutions with tagging
Sampling									
Some service delivery settings not surveyed	NA	+	o	o	o	o	+	+	+
Streets and other public places not surveyed	NA	o	o	o	o	+	+	+	+
Seasons not sampled	+	+	o	+	+	+	o	+	+
Monthly variation in homelessness not sampled	+	+	o	+	+	+	o	+	+
Measurement									
Influenced by reasons to over- or underreport count	+	o	+	+	+	+	+	+	+
Duplication in counting	o	o	+	o	+	+	+	o	+
Movement in and out of homelessness	o	+	o	o	+	+	o	o	+
Geographic in-and-out migration	o	+	o	o	+	+	o	o	+
Noncooperation from homeless respondents	+	+	o	o	o	o	o	o	o
Unreliability of self-reports	+	+	o	o	o	o	o	o	o
Obtrusiveness of interview of homeless	+	+	o	o	+	+	o	o	o
Obtrusiveness of survey of providers	+	o	o	o	+	+	o	o	o

[a] o = method does not address sources of bias; + = method does address sources of bias; NA = sources of bias do not apply to the method. Costs are lower at the left side of the table and become progressively greater toward the right side of the table.

[b] Assumes only shelters or streets and shelters are providing data.

Source: Government Accounting Office, "Homeless Mentally Ill: Problems and Options in Estimating Numbers and Trends," Report to the Chairman, Committee on Labor and Human Resources, U.S. Senate, GAO/PEMD-88-24, August, 1988.

BEST COPY AVAILABLE

Appendix C

D-331(J CA (San Francisco)
(2-89)

UNITED STATES DEPARTMENT OF COMMERCE
Bureau of the Census
Regional Office
Los Angeles, California 90049

FROM THE REGIONAL DIRECTOR
BUREAU OF THE CENSUS

The goal of the 1990 decennial census is to enumerate all persons including those who are homeless. We will enumerate selected components of the homeless population in a one-night operation called "Shelter and Street Night Enumeration." This operation will take place on the evening of March 20th and in the early morning hours of March 21, 1990. On the reverse side of this letter is a summary of the plans for enumerating the homeless in the 1990 Census.

To accomplish the objective of counting components of the homeless, we request your assistance in identifying emergency shelters (public and private, permanent and temporary) with sleeping facilities, hotels/motels that house homeless persons/families, and other locations where homeless persons tend to stay or congregate at night, including outdoor night locations. We have a national list of shelters compiled from several sources including government and private agencies and will use your information to update and supplement our base list of places. We suggest that you contact groups who work with the homeless and also contact the police to assist you in the identification of the shelters and street locations.

I. HOMELESS IN STRUCTURES AT NIGHT

Please provide the following:

1. A list of the names, addresses, and telephone numbers of shelters with sleeping facilities including temporary shelters such as those in church basements.
2. A list of names, addresses, and telephone numbers of hotels/motels that house homeless persons/families, with cost paid either by the local government or private organizations.

Do NOT include service locations, such as soup kitchens, unless sleeping facilities also are provided.

II. HOMELESS IN OTHER LOCATIONS AT NIGHT

Please provide the following and assign priorities to locations so that we can focus our available resources to conducting an effective enumeration:

1. A list of street locations where homeless persons sleep at night. Specify the intersecting streets and house number ranges. If the location is in a rural area, give specific directions such as "Route 108 South to Route 53 East; go 8 miles on 53 East."
2. Street locations where homeless are at night other than blocks, such as bridges and city parks. List the closest intersecting streets as well as specific identifiers such as a bridge or park name.
3. The names and addresses of places such as bus or train stations, subway stations, airports, hospital emergency rooms and so forth where homeless persons also seek shelter at night.
4. A list of the names and addresses of abandoned or boarded-up buildings where homeless persons are known or believed to stay at night.

Please provide this information by October 16, 1989, so that we may complete our preparatory work before making initial contacts with the shelters and hotels/motels in January. If there are no locations in your area where homeless stay, please send a written response telling us that. Also, we would like the name and phone number of a person in your office we can contact in the future about the lists.

Send the information requested above to the following address:

Bureau of the Census
Regional Census Center
400 2nd Street
San Francisco, CA 94107-1400

Thank you for helping make the 1990 census, the Bicentennial Census, the best in our history.

If you have any questions about our program to enumerate the homeless or anything else about the census, please call me at (213) 209-6616.

Sincerely,

John Reeder

JOHN E. REEDER

cc: LOCAL REVIEW LIAISON

CENSUS '90

BEST COPY AVAILABLE

Appendix D-1

Census Jobs

OMB No. 0607-0139
Approval Expires 11/30/90

WORK AS A CENSUS EMPLOYEE

The Census Bureau is currently conducting tests and will conduct the 1990 census in the near future. Local residents will be hired as crew leaders and enumerators to visit households and conduct interviews to obtain census information. Also, some clerks and data keyers will be hired to work in the temporary census office. Help serve your community and apply now!

YOUR TRAINING

You will attend a paid training session where you will learn about census work. A crew leader or other supervisor will train you, assign work, answer questions, and supervise and review your work.

WHEN YOU WILL WORK

Most jobs will last three weeks or longer. In most instances, you must work up to 40 hours per week. If you are hired as an enumerator or crew leader, you will need to work many evenings and weekends. Because you need to be available to work when people are home, it is generally best if you have no full-time job or other such commitment. Most employees will not work more than 40 hours per week.

YOUR BASIC PAY

All: You will be paid an hourly rate. Social Security deductions are taken from your earnings. Federal, State, and local income taxes, where applicable, are also deducted. You will be reimbursed for authorized mileage and other expenses incurred while working.

Field workers

Enumerator: Average earnings will vary, depending on how many hours are worked. For close to full time work, you will earn from $220 to almost $250 per week.

Crew leader: For close to full time work, you will earn from $250 to almost $300 per week.

Office workers: Office personnel pay ranges from $5.00 to over $8.00, and in the largest cities almost $8.00 per hour.

EXTRA PAY

In addition to hourly pay, field workers may earn additional payments for some operations ranging from $50 to more than $300 in a few weeks, depending on the assignment. These payments will be dependent on production, quality, and timeliness.

YOUR DUTIES

When you have completed your training you will be assigned specific work in the office or in the field. If you work in the field, there is a possibility you may work in the same area where you live. Whatever assignment you accept, you will be expected to be accurate and thorough in your work. You also must meet minimum production standards established by the Census Bureau.

When you accept a job, you are expected to continue working until you successfully complete your assignment.

The information you collect is confidential and must not be disclosed to anyone except a sworn Census Bureau employee, and then only in the course of duty.

EQUAL OPPORTUNITY EMPLOYER

The Bureau of the Census does not discriminate on the basis of race, color, religion, national origin, marital status, sex, age, or any nondisqualifying mental or physical handicap.

Can you qualify for Census work?

1. United States citizens will be given preference for census jobs. However, noncitizens may be considered if qualified citizens are not available, particularly in areas where bilingual ability is a necessary qualification. All applicants must present documentation of employment eligibility. The types of acceptable documentation are listed on the reverse side.
2. Applicants must take a written test to show their ability to read, follow written instructions, do arithmetic, and perform in other areas related to census work.
3. One must be physically fit for the job. Enumerators must be able to walk and climb stairs. Most jobs require the ability to read small print on census forms, and the ability to speak and hear normal conversation.
4. An applicant should be at least 18 years old. Persons may be hired at age 18 if they meet conditions of employment set by State and local laws and are high school graduates, or have equivalent education or work experience.
5. Ideally, applicants should be available to work 30 to 40 hours per week, however, persons available to work 20 to 30 hours are encouraged to apply.
6. Applicants should have a satisfactory work record for the past 5 years. Poor job performance, dishonesty, criminal or immoral conduct, or unreliability could be a basis for nonselection.
7. Conviction of a violation of the law since age 18 for something other than a minor traffic violation could be a basis for nonselection.
8. A person may not engage in any partisan political activity during any 24-hour period in which work is performed.
9. All males born after December 31, 1959, must be registered with the Selective Service System. Applicants aged 26 and older who are not registered cannot be hired.
10. An applicant must not be employed as a tax assessor, tax collector, or law enforcement officer to be eligible for enumerator or crew leader jobs.

FORM **BC-170D**
(12-19-87)
EXCEPTION TO BI-171
APPROVED BY CBAIRMS (12-87)

Privacy Act statement is on reverse side.
Please detach and keep this section.

U.S. DEPARTMENT OF COMMERCE
BUREAU OF THE CENSUS

BEST COPY AVAILABLE

Appendix D-1—Con.

PRIVACY ACT STATEMENT

Solicitation of this information is authorized by Section 23 of Title 13, U.S. Code, which authorizes temporary appointments in the Census Bureau. The information will be primarily used to determine your qualifications for employment and may also be used to identify you to other sources asked to comment on your qualifications, e.g., educational institutions, former employers, and law enforcement agencies, or to a court during legal proceedings. Furnishing this information is voluntary, but failure to provide any part or all of the data sought will result in your receiving no further consideration for employment.

EMPLOYMENT ELIGIBILITY VERIFICATION (FORM I-9)

The following types of documentation can be used to prove identity and eligibility requirements for employment. Provide one document from List A **or** one document from List B **and** from List C to meet Form I-9 requirements.

List A
Identity and Employment Eligibility

- United States Passport
- Certificate of United States Citizenship
- Certificate of Naturalization
- Unexpired foreign passport with attached Employment Authorization
- Alien Registration Card with photograph

List B
Identity

- Driver's License or State ID
- School ID with a photo
- Draft Card
- U.S. Military Card
- Voter Registration Card
- U.S. Military Dependent's ID Card
- Native American Tribal documents
- U.S. Coast Merchant Marine Card
- Driver's License issued by a Canadian Government authority

AND

List C
Employment Eligibility

- Original Social Security Card
- Birth Certificate with official seal of issuing authority
- Certification of birth by State Department
- Certification of birth abroad by State Department
- Native American Tribal document
- Unexpired INS employment authorization
- Unexpired Reentry Permit (INS Form I-327)
- Unexpired Refugee Travel Document (INS Form I-571)
- U.S. Citizen Identification Card (INS Form I-197)
- Identification Card for use of Resident Citizen in the U.S. (INS Form I-179)

Appendix D-1—Con.

OMB No. 0607-0139: Approval Expires 11/30/90

FORM BC-170 (12-15-87) EXCEPTION TO SF-171 APPROVED BY GSA/IRMS (12-87)

U.S. DEPARTMENT OF COMMERCE BUREAU OF THE CENSUS

CENSUS EMPLOYMENT INQUIRY

FOR OFFICE USE ONLY	A. State	B. County	C. BNA number	D. ARA number	E. Score	F. Status	G.	H.	I.

1. Social Security number ___ - ___ - ____

2. Name *(Last, first, middle, other names used, i.e. maiden)*

3. Date of birth — Month | Day | Year

4. Sex *(for statistical use)* 1 ☐ Male 2 ☐ Female

5a. Telephone number — Area code | Number

b. Other number where you can be reached — Area code | Number

6. Mailing address — Number, street and apartment number

City | County | State | ZIP Code

7. Intersecting streets nearest your home

8. Are you a citizen of the United States? *If "No," give country of which you are a citizen and serial number of Alien Registration card in Item 30.* 1 ☐ Yes 2 ☐ No

9. If you are under the age of 18, do you have a high school diploma or equivalent? 1 ☐ Yes 2 ☐ No

10. Education — *Mark (X) highest grade completed*

ELEMENTARY 8 or less ☐ HIGH SCHOOL 9 ☐ 10 ☐ 11 ☐ 12 ☐

COLLEGE 13 ☐ 14 ☐ 15 ☐ 16 ☐ 17 ☐ 18 ☐ 19 ☐ 20 or more ☐

11. Some census jobs require the use of a language other than English. Indicate your knowledge of other languages by printing "E" for excellent, "G" for good, or "F" for fair opposite each language you list.

Language	Reading	Speaking	Understanding	Writing

12a. If you can type, how many words per minute? ____ words per minute

b. Do you have data entry experience? 1 ☐ Yes 2 ☐ No

13. *Answer all questions.* Are you available and willing to work —

	Yes	No
a. 6 hours or more each day, Monday—Friday?	1	2
b. Evenings?	1	2
c. Saturdays?	1	2
d. Sundays if necessary?	1	2

14. Do you have a valid drivers license? 1 ☐ Yes 2 ☐ No

15. Although an automobile is not needed for all jobs, do you have one available full time if your assignment requires one? 1 ☐ Yes 2 ☐ No

16a. Do you claim veterans preference?

Yes — *Mark (X) one box* →

1 ☐ 5-point — *Attach copy of DD-214, "Discharge Certificate"*

2 ☐ 10-point } *Attach SF-15, "Claim for 10-point Veteran Preference," and required proof.*

3 ☐ 10-point Compensable }

4 ☐ No — *Skip to 17*

b. List dates and branch of all active military service. From | To | Branch

c. Kind of discharge

1 ☐ Honorable or general under honorable conditions 3 ☐ Other — *Explain in Item 30*

17. ***FOR MALES ONLY:*** If you are a male born after December 31, 1959, and you want to be employed by the Federal Government, you must be registered with the Selective Service System. *Mark (X) one box.*

1 ☐ I certify that I am registered. 2 ☐ I certify that I am not registered.

18a. Most jobs are in the field, however, if you are interested in office employment only, mark (X) here. → 1 ☐

b. Would you like to supervise? *Mark (X) here.* → 2 ☐

19. How did you first learn about the particular position for which you are applying? *Mark (X) only one.*

1 ☐ Civic, community, or neighborhood organization or leader
2 ☐ Social or fraternal organization
3 ☐ Newspaper — classified ad
4 ☐ Newspaper — article
5 ☐ Radio
6 ☐ TV
7 ☐ Poster/handbill
8 ☐ Community newsletter or flyer
9 ☐ Private employment office
10 ☐ State employment office (unemployment office)
11 ☐ Agency personnel department (bulletin board or other announcement)
12 ☐ School or college
13 ☐ Federal, State, or local job information center
14 ☐ Religious organization
15 ☐ Friend or relative working for Census
16 ☐ Friend or relative not working for Census
17 ☐ Recruiting postcard
18 ☐ Other — *Specify* →

20a. If you have never worked, mark (X) here and SKIP to item 21. → ☐

b. If you have worked, list your most recent work experiences below. If presently employed, can the Census Bureau contact your supervisor?

1 ☐ Yes 2 ☐ No

c. Name and address of most recent employer

Name of immediate supervisor

Telephone No. of immediate supervisor — Area code | Number

Dates of employment *(Mo./Yr.)* — From | To

Title of position and kind of work done

Number and kind of employees supervised

Reason for leaving

d. Name and address of past employer

Name of immediate supervisor

Telephone No. of immediate supervisor — Area code | Number

Dates of employment *(Mo./Yr.)* — From | To

Title of position and kind of work done

Number and kind of employees supervised

Reason for leaving

NOTE — THE ACCURACY OF YOUR STATEMENTS WILL BE VERIFIED

BEST COPY AVAILABLE

Appendix D-1—Con.

Answer all questions in Items 21 through 29 below. Read each statement carefully before responding.

BACKGROUND INFORMATION	Mark (X) one	
	Yes	No
21. Are you now or have you ever been employed by a Federal agency? *If "Yes," show dates of employment, agency name, and location in Item 30.*		
22. Do you receive retirement or do you have a pending application for retirement, pension, or other compensation based upon military, Federal civilian, or District of Columbia Government service? *If "Yes," explain in Item 30.*		
23. Within the last 10 years, have you been fired from any job, or have you quit after being informed that your employer intended to fire you for any reason? *If "Yes," in Item 30 give the name, address, and telephone number of employer, date, and reason in each case.*		
IF YOUR ANSWER TO 24a or 24b, IS "YES," GIVE DETAILS IN ITEM 30. SHOW FOR EACH OFFENSE: (1) DATE; (2) CHARGE; (3) PLACE; (4) COURT; AND (5) ACTION TAKEN.		
24a. Have you ever been convicted, forfeited collateral, or are you now under charges for any felony or any firearms, or explosives offense against the law? (A felony is defined as any offense punishable by imprisonment for a term exceeding one year, but does not include any offense classified as a misdemeanor under the laws of a State and punishable by a term of imprisonment of two years or less.)		
b. During the past ten years have you been convicted, imprisoned, on probation or parole or forfeited collateral, or are you now under charges for any offense against the law not included in a above?		
NOTE — When answering a and b above, you may omit: (1) traffic fines for which you paid a fine of $100.00 or less; (2) any offense committed before your 18th birthday which was finally adjudicated in a juvenile court or under a youth offender law; (3) any conviction the record of which has been expunged under Federal or State law; and (4) any conviction set aside under the Federal Youth Corrections Act or similar State authority.		
25. Does the Bureau of the Census employ any relative of yours (by blood or marriage) in your area? *If "Yes," give in Item 30 for each relative; (1) full name; (2) address, including ZIP Code; and (3) relationship.*		
26. Are you an official or an employee of any State, territory, county, or municipality? *If "Yes," explain in Item 30.*		
27. Are you now barred by the U.S. Office of Personnel Management (formerly the Civil Service Commission) from taking examinations or accepting a civil service appointment? *If "Yes," explain in Item 30.*		
28. While in the military service were you ever convicted by a general court-martial?		
29. Are you delinquent on any debt owed to the federal government?		

30. EXPLANATIONS OR ANSWERS TO ITEMS 1 THROUGH 29 — *Attach additional sheet if needed.*

Item No.	Explanation

ATTENTION — THIS STATEMENT MUST BE SIGNED IN INK

Read the following paragraph carefully before signing this Statement.

A false answer to any item in this statement may be grounds for not employing you or for dismissing you after you begin work, and may be punishable by fine or imprisonment (U.S. Code, Title 18, Sec 1001). All statements are subject to investigation, including a check of your fingerprints, police records, and former employers. All the information you give will be considered in reviewing your Statement and is subject to investigation.

CERTIFICATION	Signature *(Sign in ink)*	Date signed
I CERTIFY that all of the statements made in this application are true, complete, and correct, to the best of my knowledge and belief, and are made in good faith.		

FORM BC-170 (12-16-87)

Appendix D-2

everyone counts

21st Decennial Census — 1990

Employment Test Information for Census Job Applicants

Each applicant for Census Bureau employment must take a written test. This brochure describes the test, and gives examples of the kinds of questions found in each section of the test. (None of these questions are actual test questions.) It also provides information on the various jobs for which the Bureau of the Census will be hiring.

The test consists of 28 questions designed to measure the skills, abilities and knowledge required to perform a variety of census jobs. There are five parts to the test: reading, clerical, number, evaluative, and organizational skills.

The questions are multiple-choice. This means that for each question there are several choices from which you have to select the best answer. Record your answers on the test answer sheet.

You have 30 minutes to complete the test. Applicants applying for data transcriber positions must also take an automated keying test.

To receive veterans preference for hiring purposes, applicants must bring a DD-214, Armed Forces Service Record, or equivalent to the testing site for proof of qualifying service.

UNITED STATES DEPARTMENT OF COMMERCE
Bureau of the Census

D-282 (10/87)

125

BEST COPY AVAILABLE

Sample Questions

PART I—CLERICAL SKILLS

(This section tests your ability to alphabetize, serialize, and match.)

Try to match the numbers in Column A to those in Column B. Then answer the question below.

Column A	Column B
75823	87537
82537	86537
73358	75823
85537	73358
87537	82357

Which number in Column A has no match?

(A) 82537
(B) 85537
(C) 87537
(D) None of the above

ANSWER A

PART II—READING

(This section tests how well you read. The items include vocabulary, comprehension and following instructions.)

Read the following statement and choose the answer which BEST supports the statement.

Enumerators canvass their assigned areas, one block at a time, looking for every structure in which people live or could live, and comparing what they find in the area with what is listed in their address registers. The address register is supposed to show the address of each structure within an assigned area where people live or could live, but it has to be updated. As the enumerators travel through each block, they list in their registers the address for each structure that is not already on the list, and delete any listings for structures which cannot be located.

As described above, enumerators must—

(A) correct the address registers based on their findings in canvassing each block.
(B) record in the address registers the addresses of every structure where people live or could live.
(C) delete those addresses from the address registers at which no person lives.
(D) make certain that every block in their assigned areas is listed in the address registers.

ANSWER A

To ENUMERATE means most nearly to—

(A) survey
(B) assess
(C) compute
(D) count

ANSWER D

PART III—NUMBER SKILLS

(This section includes addition, subtraction, multiplication and division problems. Some problems involve no computations, just an understanding of numerical concepts.)

Multiply the numbers below:

1.5 × 6.3

(A) .945
(B) 9.45
(C) 94.5
(D) 945

ANSWER B

PART IV—INTERPRETING INFORMATION AND EVALUATING ALTERNATIVES

(This section tests your ability to use good judgment in interpreting information in order to determine the best of several possible alternatives.)

A group of applicants for census jobs was taking a test. Anita Allen did not complete her test until 20 minutes after the rest of the group. Based on the information provided, which of the following is a reasonable statement about Anita's performance?

(A) She is much more careful about her work than others in the group.
(B) She is probably not as smart as the rest of the group.
(C) She worked more slowly than the rest of the group for some reason.
(D) She was probably bothered by some personal problem which kept her from working faster.

ANSWER C

PART V—ORGANIZATIONAL SKILLS

(This section determines your ability to use logical reasoning in order to analyze, summarize, and/or organize information to solve a problem or follow an instruction.)

In the set of numbers below, choose the number that does not follow the pattern.

. . . 40, 140, 239, 340 . . .

(A) 40
(B) 140
(C) 239
(D) 340

ANSWER C

CENSUS '90

EQUAL OPPORTUNITY EMPLOYER —

The Bureau of the Census does not discriminate on the basis of race, color, religion, national origin, marital status, sex, age, or any nondisqualifying physical or mental handicap.

BEST COPY AVAILABLE

Appendix E

UNITED STATES DEPARTMENT OF COMMERCE
Bureau of the Census
Washington, D.C. 20233

SUMMARY OF 1990 CENSUS PLANS

FOR COUNTING SHELTERS FOR ABUSED WOMEN

The Census Bureau will count pre-identified shelters for abused or battered women for the 1990 census as a part of the special operation, "Shelter and Street Night Enumeration." The count will occur from 6 p.m. on March 20, 1990 through noon on March 21st.

OBJECTIVES OF THE COUNT OF SHELTERS FOR ABUSED WOMEN:
There are three primary objectives: (a) to maintain strict confidentiality of the addresses of the shelters and to reduce their contact with Census Bureau employees; (b) to be sure that women and children in these shelters are included in the decennial census; and (c) to provide data on the count and characteristics of persons in such shelters.

OPTIONS FOR ENUMERATION:
Shelters for abused women may choose one of the four options listed below for enumeration. Shelters should notify the Census District Office (DO) for their area by December 1989 if they wish to participate in Options 1 or 2.

1. Recommend persons the Census Bureau could hire as census takers for all the shelters in a census DO area. The person recommended would need to be knowledgeable about the confidential locations of all the shelters for abused women in an entire census DO area. The person would have to apply to the Census Bureau and meet standard hiring requirements. The person selected would be a sworn census employee and would work with an office supervisor to delete shelter addresses from the Census Bureau's lists from further followup. The count would be conducted on March 20-21, 1990. This option best meets the objectives above.

2. Request self-enumeration for March 20, 1990. The Census DO will provide instructions for self enumeration by shelter operators (who must also swear to keep the data confidential). The count would occur on March 20, 1990. The shelter will have to provide their address (which is confidential) so that they will not be contacted again.

3. Be counted by regular census takers on "Shelter and Street Night" on March 20, 1990 from 6 p.m. to midnight. The Census Bureau has a list of some shelter addresses and they will be counted by Option 3 unless they choose option 1 or 2 above.

4. Be counted as of April 1, 1990 during regular census operations as a housing unit rather than be included in the count of shelters for abused women. Regular census takers must visit the shelter to be sure that all persons were

Appendix E—Con.

listed. In this case, census takers ask for names and ask if persons have another usual address (if they do, that address will be listed and they will be counted there).

The shelter address is required under all options. It is used to avoid further field followup and later, in tabulating counts and characteristics for statistical areas. Under Options 1, 2, and 3, persons are not asked if they have a usual home elsewhere and they may choose to use a number rather than their name. Chart 1 below summarizes the differences among the options.

Under any option, all information, including the address of the shelter and information collected about the shelter residents, is confidential under Title 13 of the U.S. code. No power can obtain personally identifiable information or addresses from the Census Bureau. The airtight law includes the White House, the judicial system, police and military, Internal Revenue Service, immigration, and welfare agencies -- everyone. Information is exempt from the Freedom of Information Act as well as court subpoenas. Census employees are subject to a $5,000 fine and/or up to 5 years imprisonment for any disclosure of census answers. The Census Bureau has a proud tradition of maintaining the confidentiality of answers.

The National Coalition Against Domestic Violence will notify their membership about the plans for the decennial census and encourage them to use option 1 or 2 above to be sure that the count is done by persons knowledgeable about the needs of the shelters and to ensure that national data will be available on shelters for abused women.

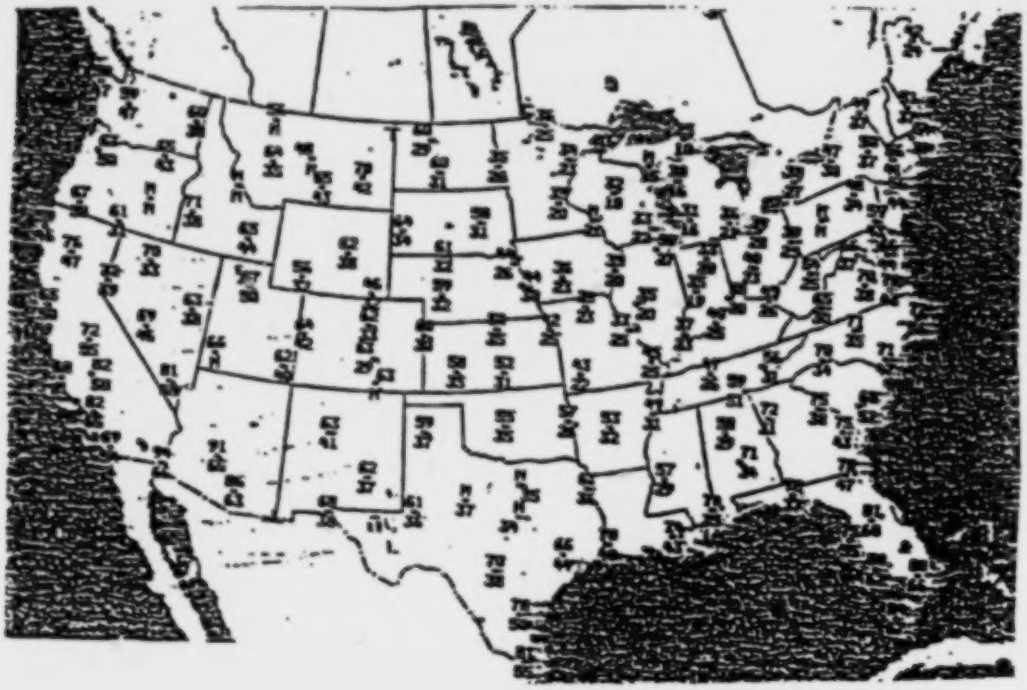
SUMMARY OF OPTIONS:

	Option 1	Option 2	Option 3	Option 4
Enumeration time?	3/20-21/90	3/20/90	3/20/90	4/1/90
Enumeration by--				
A. Recommended person	X			
B. Shelter operator		X		
C. Regular census taker			X	X
Address of shelter required?	yes	yes	yes	yes
Name/usual address of resident required?	no	no	no	yes
Visited 1/90 for Special Place Prelist to determine group quarters and housing units at address by--				
A. Recommended person	X			
B. Regular census taker		X	X	
C. Not visited 1/90				X

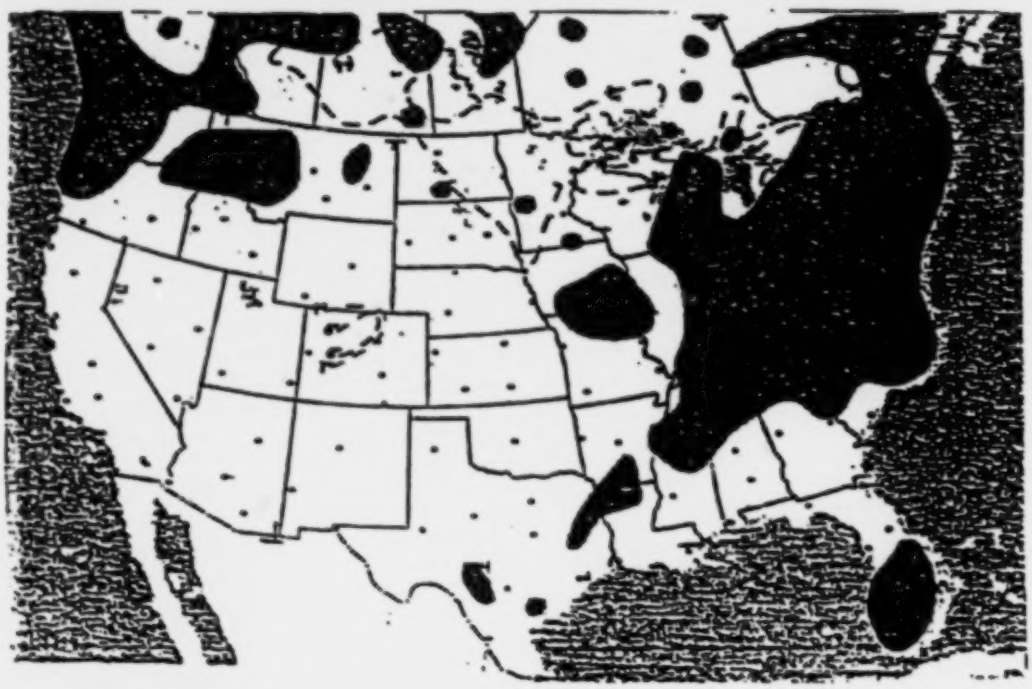
For further information contact:

Appendix F

Highest and Lowest Temperatures for Tuesday, March 20, 1990



Precipitation Areas for Tuesday, March 20, 1990



Source: National Weather Service

BEST COPY AVAILABLE

Appendix G

P-33
(11-3-89)

U. S. DEPARTMENT OF COMMERCE
BUREAU OF THE CENSUS

SUMMARY OF 1990 CENSUS PLANS FOR ENUMERATION OF SELECTED COMPONENTS OF THE HOMELESS POPULATION

21st Decennial Census — 1990

Information has been lacking about the numbers and characteristics of the nation's homeless population. The Census Bureau is actively building a nationwide operation for the 1990 census to provide demographic, social, and economic data on **selected components** of the homeless population.

There is no generally agreed-upon definition of "homelessness." As such, the Census Bureau will not provide an official definition or total count of "the homeless." Rather, we will provide data users the building blocks to construct a count of "homeless" appropriate to their purposes.

The Census Bureau will count components of the homeless population in two major operations, one, a special night-time operation, and one that is part of the regular enumeration process.

First, we will conduct one special operation ("shelter and street night") on March 20, 1990 to count persons in pre-identified emergency shelters (public and private) and open locations in the streets or other places not intended for habitation. This special operation includes all hotels/motels costing $12 or less per night, hotels/motels used entirely to shelter the homeless (regardless of cost), pre-identified rooms in hotels/motels used for homeless persons and families, and shelters for abused women. Enumeration will occur when the population is generally settled for the night. For shelters, enumeration will usually occur from 6 p.m. to midnight; street enumeration, from 2 a.m. to 4 a.m.; abandoned and boarded-up buildings from 4 a.m. to 6:30 a.m.

Other components which are sometimes included in the count of the homeless population will be enumerated as part of the regular census operations. These include "doubled-up families " and persons with no usual home living in tents at commercial campgrounds. In institutions, such as local jails, which may provide temporary shelter, we will not know who has a usual home. Such persons will be counted but cannot be identified separately as homeless.

Before the "shelter and street night" enumeration, we will work with local officials, persons who work with the homeless, and the homeless to identify the shelter and street locations to be visited during the operation. We will encourage those who work with the homeless, and the homeless themselves, to apply for work as enumerators.

We will attempt to ask all persons in shelters and all persons living on streets the basic demographic questions. Additional questions about social and economic characteristics will be asked only for a sample of persons in shelters.

In the street enumeration, sleeping persons will not be awakened to answer questions. Rather, enumerators will estimate as best they can the person's age, sex, and race. We will follow the same procedure for persons who are not in a state of mind to answer questions. If a sleeping person is covered up so that characteristics cannot be determined, the person will be counted and characteristics will be assigned later by a computerized algorithm.

We will tabulate information about the count and the characteristics of the population of each of the selected component settings in which the homeless live. Data will be available for persons and families living in shelters and low-cost hotels and motels, in nonsheltered locations, in shelters for abused women, and so forth. For all except the population living in the streets, information will be available from the 1990 census about characteristics such as educational attainment, veterans status, source of income in 1989 (if any), and work activities and unemployment cross-classified by sex, race, Hispanic origin, and broad age groups.

Persons, or entire families, who are doubled up in housing units with friends or relatives are considered "homeless" by some and "precariously housed" by others. These families will be enumerated in the regular census operations. We will provide tabulations of all housing units with more than one related family or with unrelated persons cross-classified by characteristics such as income, poverty status, and the percentage of family income spent on housing. Researchers and planners can use these data as indicators of the precariously housed or homeless as they see fit.

In summary, the 1990 census will provide a count and basic characteristics of selected components of the homeless population at the national and local levels. We are measuring components of the homeless on one night, not the dynamics of homelessness. The homeless, and especially those living on the streets, are among the most difficult populations to count completely because of the obvious physical dangers to enumerators working at night and because some people will avoid the census. We expect that the count of the "street" component will be very conservative. A general-purpose survey such as the census cannot provide comprehensive data on the homeless. Data users will obtain basic data on components of the homeless population throughout the United States collected in a uniform manner as of the same date. They will have the flexibility to combine selected components or analyze components separately.

For more information:

Cynthia M. Taeuber
Population Division
Bureau of the Census
Washington, DC 20233

Telephone: (301)763-7883

CENSUS '90

Assessments of the 1990 S-Night Census Operation and Overview of the Experimental S-Day Method

Laurel Schwede,
Matt T. Salo, and
Pamela C. Campanelli
Center for Survey Methods Research
U.S. Bureau of the Census

The Center for Survey Methods Research (CSMR) is a division within the Census Bureau concerned with identifying sources of nonsampling error in censuses and surveys, and then designing new research to improve current methods and procedures. Since 1988, a CSMR team consisting of anthropologists, a survey statistician, and a sociologist has concentrated on research for improving the enumeration of homeless people. The team has sponsored an independent assessment of the S-Night component of the 1988 Census Dress Rehearsal, conducted ethnographic research, and developed a day-time enumeration method. In 1989, the team conducted a pilot test comparing both the planned census Shelter and Street enumeration, "S-Night," and experimental service facility, "S-Day," methods of enumerating homeless people in Baltimore. In conjunction with an inter-divisional working group within the Census Bureau, the team sponsored independent research to assess the Census Bureau's 1990 S-Night procedures. In this talk, I will briefly describe the assessments of the 1990 S-Night operation and then discuss the experimental method we have developed for enumerating homeless people during the day-time.

This paper reports the results of research undertaken by Census Bureau staff. The views expressed are attributable to the authors and do not necessarily reflect those of the Census Bureau. The data in this report are preliminary and tentative in nature, as the final project report is not yet complete.

ASSESSMENT STUDIES OF THE 1990 S-NIGHT OPERATION

The Census Bureau is conducting assessments of the shelter and street portions of the S-Night procedures implemented on March 20-21, 1990, as part of the Decennial Census. The independent assessments have been carried out through Joint Statistical Agreements (JSAs) between the Census Bureau and several not-for-profit organizations. There are four overall goals of the research:

1. to assess the completeness of the lists of shelters used for homeless people on S-Night,
2. to assess how well the enumeration procedures were followed at a sample of street enumeration sites in eight district office areas,
3. to learn about the attitudes of homeless people immediately after the census, and
4. to identify and assess factors influencing the quality of S-Night enumeration at both shelters and street enumeration sites.

1. The Shelter List Completeness Assessment

The first component of the overall study involved an assessment of the completeness of Census Bureau shelter lists which had been compiled from many sources. First, the Census Bureau selected a stratified probability sample of 45 census district offices (DOs). Six principal investigators were asked to compile independent lists of shelters, either alone or with the help of knowledgeable local experts, corresponding to these selected district office geographical areas. They submitted their shelter lists to their respective local district offices for comparison with the census lists used.

The shelter list assessment covered emergency shelters, low-cost hotels and motels, and subsidized units within hotels and motels, but excluded shelters for abused women. Any places appearing on these independent lists that were not already on the district office lists were subsequently contacted, and if found to fit the shelter criteria, covered by Census Bureau personnel, even if they were identified after the actual March 20th S-Night count. Thus the independently generated lists were used to assess, and later to improve, coverage of shelters in the 45 DOs.

The principal investigators and local experts described their methods for generating lists, identified problems encountered in their work, and offered recommendations for improving the compilation of shelter lists. Census Bureau staff will assess the coverage yield from any new locations identified by the experts and prepare a report on the Shelter List Completeness Assessment Project.

2. The Assessment of S-Night Street-Phase Procedures

The second part of the overall research focused on an assessment of how well enumerators followed procedures in the S-Night street phase in eight district office areas: 4 in New York City and 1 each in Chicago, Los Angeles, Phoenix, and New Orleans. These cities were selected to represent geographically diverse locations with sizeable homeless populations, where the count of homeless people had generated considerable local interest, and where we could locate qualified researchers. The S-Night street-phase procedures specified that enumerators were to interview all people visible and awake in preidentified street sites and places of commerce between 2 and 4 a.m. who were not in uniform or engaged in money-making activities.[1] These sites—city parks, street blocks, areas under bridges, bus and train stations, airports, hospital emergency rooms, and similar locations where homeless people tended to stay at night—had been identified by local governmental units, police, groups working with the homeless, and Census Bureau district office personnel.

For the street-phase assessment, 60 in-place observers (IPOs) were placed in teams of two or three at a random sample of preidentified sites to observe and report on how well census takers followed enumeration procedures. Exceptions were New York where 120 observers were approved and Los Angeles, where the principal investigator decided on his own to add 20 individuals (paid by the city of Los Angeles).

The in-place observers were told to station themselves in these sites from 1:45 a.m. to 4:15 a.m., bracketing the scheduled street enumeration period. After the enumeration period was over, the IPOs met as a group with their principal investigators to fill in debriefing questionnaires. They recorded their observations on whether enumerators came to their sites. If enumerators came, the IPOs described the enumerators' behaviors, their interactions with the respondents, the extent to which they followed procedures, and the length of their stays at the sites. Observers also noted the environmental and social conditions on the night-time streets. This included describing the site and its inhabitants, counting the visible people at various times between 2 and 4 a.m., and describing how these people reacted to the enumerators.

In addition, the IPOs were to report whether they believed they had been included in the census, either by direct interview or indirect observation. The in-place observers also participated in oral debriefing sessions with the principal investigators.

The principal investigators from the five cities are submitting reports to the Census Bureau describing 1) the process used and the level of success attained in hiring street observers and 2) general environmental factors that may have affected the census count, such as the weather, the media, local events, etc. Census Bureau staff will analyze the IPO debriefing forms and prepare a summary report.

Finally, the five researchers conducted qualitative post-census interviews with small groups of homeless people who use shelters and others who frequent the street. The

[1]The S-Night street phase also included enumeration of people emerging from predesignated abandoned buildings between 4 and 8 a.m. These sites were not included in the street-phase assessment study.

objective of this third part of the research was to learn about homeless people's awareness of and attitudes toward the census, as well as their reasons for participation or non-participation.

3. Additional Research in New York City

In the New York City district office areas, there were two additional projects. First, post-census counts were conducted over five nights at selected night-time street sites to assess the variability of such counts over time. Second, participant observers were used to determine what percentage of individuals found on the night-time streets were actually "homeless" as indicated by the observation that they remained overnight at the street site. A separate report will be submitted for this research.

4. Limitations of These Assessments

The shelter and street assessments were not designed to provide measures of coverage of homeless people through S-Night enumeration. The shelter assessment was designed to assess the coverage of shelters by comparing the list of shelters compiled by the Census Bureau from various sources with the independent lists generated by outside knowledgeable local experts. While addition of new shelters identified by the local experts improved coverage, we do not know how many more shelters may have remained unidentified by both local experts and the census. There is no comprehensive national list to provide the true number of such shelters. Another important limitation of the shelter list assessment is that it does not tell us anything about the quality or completeness of enumeration of people within shelters during the actual SNight count.

The street-phase assessment projects also have important limitations. These assessments cannot provide estimates of the true S-Night street homeless population or the levels of coverage attained on S-Night because there is no baseline for comparison, either in terms of the true number of homeless people or the total number of sites where they may be found. Homeless people find privacy and shelter in a wide variety of places and may move frequently. They are often loath to tell anyone, other homeless people included, where they spend the night. This understandable reticence in revealing the locations of sleeping places which may be used one night and abandoned the next make the task of developing lists of currently used street sites difficult at the local level and very difficult for the nation as a whole.

The in-place observers made on-the-spot observations about the extent to which enumerators followed procedures, how many individuals the census enumerators appeared to miss at the sites and whether the observers themselves were interviewed. This is the first time we have tried the method of using in-place observers with just a few hours of training to assess census procedures. From preliminary results received from the researchers, we have begun to identify some sources of error that complicate analysis and interpretation of the results. For example, enumerators could have indirectly counted individuals by observation without directly *interviewing* them. The in-place observers did not necessarily have any outward indication that this was taking place. It is also possible that at some sites observers missed seeing the enumerators altogether, perhaps because the site was very large or visibility was obstructed. Perhaps the enumerators did not wear vests or carry their brightly-marked census satchels, or violated procedures by not getting out of their cars or by conducting their enumeration outside the scheduled time frame. Another reason observers could have missed seeing enumerators is that some of the observers may not have been present in the site during the entire enumeration period. Thus, both the census counts and the observations by the IPOs are subject to unknown degrees of error.

The IPOs' debriefing forms and the independent researchers' assessment studies can give us indications of problems, but the potential sources of error just mentioned raise questions about the statistical reliability of the comparisons between the numbers observed at the sites and the numbers enumerated by the census takers. Also, the sample of sites is small and limited to the specific district office areas. It is not valid to extrapolate results from district office areas to other parts of the cities, to other cities, or to the nation as a whole.

Based upon the principal investigators' reports, the Center for Survey Methods Research (CSMR), in conjunction with the Census Bureau's project working group, will prepare an overall final report analyzing all sources of data. The report will include:

1. a description of the implementation of each study component,
2. the numbers of shelters and people added by the independent experts in the shelter study,
3. recommendations for compiling shelter lists,
4. results of the analysis of the IPO debriefing forms,
5. results of the qualitative research among homeless people, and
6. after census forms have been processed, a comparison of the numbers reported by the in-place observers with the actual census counts.

The final overall report incorporating results from other Census Bureau divisions will be completed in 1992.

THE EXPERIMENTAL S-DAY METHOD

Now let us step back in time. In 1988 the Census Bureau did a dress rehearsal census, including the S-Night procedures as of that time, in St. Louis, Missouri.

The team of independent researchers assessing this dress rehearsal S-Night operation (McCall et al., 1989) concluded that, in general, the S-Night shelter count method worked well. Dr. McCall and his associates also concluded that the S-Night street count was less cost effective, less accurate, and potentially less safe than the shelter count.

On the basis of McCall's findings and our own observations, the CSMR team began developing an alternative method to enumerate the "street homeless" that did not involve a night-time street count. Both the S-Night and the fledgling S-Day methods were tested in a June, 1989 Baltimore pilot test. This first attempt at implementing the experimental S-Day method gave us our initial indications of problem areas we would need to work on before conducting a second pilot test in another, larger area. The Baltimore pilot test came too late in the census timetable to incorporate any major changes in 1990 decennial census plans. The results are useful in understanding S-Night results and in planning future surveys or censuses of homeless people.

The experimental S-Day approach involves enumeration of homeless people at day-time centers where they receive services such as food, clothing, medical assistance, and so forth. The main advantages we expected from a daytime enumeration over a night-time street count include:

1) the greater number of people available for enumeration during the day,
2) the greater probability of finding and enumerating some of the homeless people who are hidden at night and thus missed by the S-Night street-phase method,
3) the increased safety of both the enumerators and the interviewees,
4) less intrusion on the privacy of homeless people in the day than during the middle of the night,
5) the higher quality of data which may be obtained from people awake and going about their normal business, rather than asleep in the middle of the night, and
6) the opportunity to obtain information about those doubled-up families and individuals missed by the S-Night procedure who use day-time services.

A final advantage is that day-time services may be about three times more numerous than the night-time shelters in some areas. In Baltimore and Washington, D.C., there were three times as many day- as night-service sites. We do not yet know how generalizable this ratio is for other areas, but in contrast to the night-time street sites, we know these are sites used by the homeless on a regular basis. Thus no vacant sites are included. (See Salo and Campanelli, 1989, for a more thorough description of the development of the S-Day method.)

During the day-time, there is a greater mix of people at service sites than at night; day-time facilities serve the poor who have homes and the precariously housed, as well as those literally homeless. Thus, for a daytime method, screening questions are needed to establish whether a person has a home address where he/she would be counted during the regular census. Using the S-Day method, we gathered information on "sleeping place" patterns to distinguish categories of people using S-Day facilities. Because people move about more during the day than at night, a day-time method also required us to develop a method to identify and remove duplicate questionnaires to avoid counting individuals more than once at the same site or at more than one site. The S-Day method requires, therefore,

1) valid screening questions,

2) the collection of identifying data to unduplicate cases, and

3) post-enumeration clerical work to identify and remove duplicate cases both within and between sites.

The Census Bureau designed S-Night to *include homeless people in the census, not to do a census of homeless people.* In this effort, the Census Bureau did not provide a formal definition of homelessness for the 1990 Census operations. The procedures involved enumerating all people (except those in uniform or engaged in money-making activities) during the specified enumeration periods at preidentified shelters, subsidized hotels/motels, temporary shelters, night-time street sites and all-night places of commerce, and in front of abandoned buildings.[2] These directions to enumerator trainees constitute an operational definition of people who were to be included in the S-Night operation. The S-Night method had no screening questions; thus, an unknown number of domiciled people could have been included. Some people, especially the hidden homeless and those spending the night at other types of places not included in S-Night, were excluded from the S-Night count because they were not visible at the designated sites on S-Night.

In developing the S-Day approach, we conducted ethographic research among homeless people in Baltimore to identify the varieties of homelessness and the range of places homeless people frequent. We focused on the daily problems faced by the homeless. By observing how homeless people met their needs, we identified which food, shelter, medical and other services they utilized and with what relative frequency. We learned that most of the homeless use some type of day-time services, especially soup kitchens, and that, aside from the shelters, there are no other places where they congregate in such large numbers. We also discovered that night-time street congregating sites in Baltimore were not fixed, but varied by season, day of the week and time of day, as well as external events, such as police crackdowns or the influx of tourists.

On the basis of the ethnographic research, we developed a functional definition of homelessness. This definition informed the development of explicit screening questions assessing degrees of attachment to sleeping places which we added to the S-Day questionnaire.

After several months of research, we defined an area of Baltimore with a diversity of homeless people and a variety of day-time and night-time congregating areas. The selection of day-time sites was based primarily on our knowledge of the range of local services. We used factors such as their operating schedules and the travel patterns of homeless people between them, as well as the presence or absence of local social control agents who might affect the movements of the homeless among facilities.

In terms of scheduling for the Baltimore pilot test, we took note of the seasonal differences in the service utilization patterns of the homeless and also of variations by the time of day, week, and month. We wanted to ensure as much comparability to the 1990 S-Night as possible. This meant that the pilot test date had to be on a weekday at the end of the month, shortly before "check day" when homeless people would be most likely to be low in funds and in need of service facilities. Scheduling delays did not allow us to conduct the test in the early spring

[2]In some all-night places of commerce, owners or managers were asked to identify the homeless people among their patrons. No explicit criterion was provided; the enumerators relied on the proprietors' judgment as to who was and was not homeless in determining whom to interview.

when S-Night would be done in the actual census. The dates chosen were the night of June 27/28 for the S-Night count and June 28 for the S-Day enumeration. The pilot test covered seven shelters, two missions, thirteen outdoor street sites, four places of commerce, eight abandoned buildings, and nine daytime service facilities.

1. The S-Day Pilot Test Enumeration

Interviewing people can be difficult at some day-time locations, such as soup kitchens. During pretesting, we found we had the most control of the interviewing situation while respondents were waiting in line before facilities opened and the lines began moving rapidly. Once inside, potential respondents eat quickly and leave. To maximize our chances of getting at least some information on everyone, we used a two-stage procedure. First, some enumerators contacted and listed all people while they were waiting in line. If a respondent volunteered that he/she had been interviewed before, the enumerator asked where and when that interview had taken place and obtained the person's initials and birth date for later verification and matching.

After this first contact, respondents who agreed to an interview and who had not been interviewed before were interviewed using the S-Day questionnaire. We attempted to interview all persons using S-Day facilities except for those staff members who had a usual home elsewhere.

In addition to the standard demographic items included on all census forms, the S-Day questionnaire had a series of screening questions about the "sleeping places" of respondents: where respondents spent the night 1) before the survey and 2) during the previous two weeks, as well as where they 3) usually spent the night. Additional questions covered the name of the sleeping place (if there were one), its location, the length of stay, whose place it was, and whether there were any time limits on the length of stay there. With these questions, we developed a six-category scheme showing the range of attachments to sleeping places over a six-month period, ranging from the "domiciled" through the tentatively, precariously, and literally homeless.

Depending on one's definition of homelessness, differing numbers of these categories of persons would be considered "homeless," and differing counts would be produced. Using a strict definition including only the literally homeless, 32 percent of the people included in our 1989 S-Day pilot test who provided enough information for classification would be considered homeless and 68 percent domiciled. With a wider definition including the 32 percent who were literally homeless as well as those with precarious and tentative housing arrangements, the proportion of those classified as homeless in the *same* pilot test would rise to 58 percent and the proportion of those domiciled would fall to 42 percent. These very divergent results show that how one defines homelessness is a critical variable determining the counts of homeless people which are produced.

Participation in the pilot test was voluntary and there was no publicity of this test before we conducted it. Six percent of the people at S-Day facilities were attrition cases (with an initial enumerator contact, but no second interview), mostly due to interviewers not following procedures. Another fifteen percent declined to provide any information to us in this voluntary, unpublicized pilot test; we expect that refusal rates would be considerably lower within the context of the actual census enumeration. Improving the response rate, with special attention directed toward reducing the high refusal rate, would be a goal of any future S-Day research.

2. Evaluation of the S-Day Method

The S-Day method has the potential advantage of including a wider variety of homeless people than the S-Night method, but the disadvantages of requiring valid screening questions and operations to unduplicate people counted at more than one site. Also, we need to do more design work to reduce the nonresponse rate. Our work is preliminary, and we do not yet know how well this method would work in other urban, suburban, or rural areas.

Just as a one-night street count at open street locations and public places misses individuals who are hidden, mobile, or at other locations, a one-day procedure limited to service facilities misses individuals who do not use the services on the day the survey is

conducted. There is a high probability that persons who use either night- or day-time services infrequently will be missed by a one-time count. Thus, specifying who might be missed by a one-day count and determining the optimal number of interview days are important research objectives. This involves balancing the value of data completeness against cost considerations.

CONCLUSION

In this talk, I have given you a brief overview of the goals and methods of the Census Bureau's 1990 S-Night shelter and street-assessment studies, identified some of the limitations and analytical weaknesses we have found in these studies, and outlined the final overall report on S-Night that we will be preparing. I have also provided an overview of an experimental S-Day method, identified the advantages and disadvantages of this approach, and discussed some problems that need more work before we consider testing it again on a larger scale and possibly over more than one day.

REFERENCE CITED

Friskics-Warren, William (February, 1991) "The Independent Compilation of Shelter Lists by Local Experts for the 1990 S-Night Enumeration: Project Design and Recommendations." Copies may be obtained from the Center for Survey Methods Research, U.S. Bureau of the Census, Washing ton, D.C.

McCall, G., Denowitz, R. D., and Stein, M.C. (December, 1989) "A Participant Observation Study to Evaluate Procedures for Enumerating the Homeless in the St. Louis Dress Rehearsal." Final Joint Statistical Agreement Report submitted to the U. S. Bureau of the Census. Copies may be obtained from the Center for Survey Methods Research, U. S. Bureau of the Census, Washington, D.C.

Salo, M. and Campanelli, P. (November, 1989). "The Role of Ethnographic Methods in the Development of Census Procedures for Enumerating the Homeless." Paper presented at the meetings of the American Anthropological Association, Washington, D.C.

Developing the Estimate of 500,000-600,000 Homeless People in the United States in 1987

Martha R. Burt
The Urban Institute

These estimates are based on data from the Urban Institute's (UI) 1987 study of homeless users of soup kitchens and shelters in large U.S. cities (100,000 or larger). Earlier presentations of the estimates and the assumptions on which they are based can be found in Burt (1988) and Burt and Cohen (1989, Chapter 2). The methods used in this study are exhaustively described in our final report (Burt and Cohen, 1988, Volume II, Appendix B) and will be repeated here only in the barest outline. Briefly, our universe of cities with 100,000 or more population in 1984 was chosen because, with limited resources for the study, we focused on those communities most likely to have high concentrations of homeless people. Cities, rather than counties or MSAs, were the unit of analysis because we were interested in service provider networks, and thought we would be more likely to find coherent networks within the city context.

This universe of 174 cities was stratified by size (1 million or more, 999,999-500,000, 499,999-250,000, 249,999- 100,000) and Census region (Northeast, Midwest, South, West). The six cities with more than a million population were selected with certainty; in New York City, two of the four boroughs (Manhattan and Queens) were randomly selected to represent the city, again due to our interest in coherent provider networks. Within the remaining strata, cities were selected in proportion to the size of their poverty population based on 1980 census figures, to meet a sample size of 20 cities. The sample size was determined by time and cost constraints as well as an intention to have an adequate sample size for analysis.

Within the geographical boundaries of these 20 cities we enumerated every soup kitchen and shelter (including hotel/motel/apartment voucher programs) and identified their size (number of beds, or number of people served at the largest meal of the day), working from existing lists, telephone surveys, and key informant information in an iterative process. From the 759 facilities thus enumerated we randomly selected 400 for our primary sample and another 200 as a backup sample in proportion to their actual size, from strata defined by facility type (soup kitchen, shelter without meals, shelter with meals) and size (over 100, 100-26, 25 or smaller). In all, we contacted or attempted to contact 517 providers, of whom 20 did not exist, 44 were inappropriate (beyond the city limits or did not serve homeless), and 72 could not be reached or refused to be interviewed. The final sample of providers included 381 facilities, or 84 percent of the 453 eligible facilities we contacted or attempted to contact (381 + 72). The final count of eligible facilities in these cities was 686.

Facility users were randomly selected through one of several techniques, as appropriate to the setting—selection with a random start and fixed skip interval from individuals as they passed through a meal line, a layout of tables and chairs in the seating area of a meal program, a roster of shelter users, or a layout of shelter beds. Interviews usually took place at a meal time, after the respondent had eaten; in shelters without meals most interviewing took place in the evening. Respondents were first screened for homelessness. Respondents were classified as homeless if: 1) they said they did not have a home or a permanent place to live; 2) they said they did have a home or permanent place, but that place was (a) a shelter or hotel/motel paid for by "homeless" vouchers or other pay arrangements, (b) an outdoor or indoor space not meant for habitation, (c) the home of a relative or friend with whom they did not have a regular arrangement to stay for five or more days a week. No verification was obtained for their responses, either from agency records or from other people. Completed interviews were obtained from 97 percent of persons identified as homeless, all of whom were paid $5.00 for participation. In soup kitchens, only 57 percent of screened individuals were identified as homeless. These procedures yielded a sample of 1704 individuals.

Weighting procedures were applied to each record. Final weights included the following components: 1) selection of cities from city strata; 2) selection of providers within cities and provider strata; 3) adjustment for provider nonresponse; 4) selection of individuals from all

facility users (after screening); 5) adjustment for individual refusal/nonresponse; 6) adjustment for frequency of use; 7) realignment for homeless who use both soup kitchens and shelters (unduplicating). These weighting procedures resulted in an estimate of 194,000 adults in cities over 100,000 who used soup kitchens and shelters during any given week in March 1987. The standard error for this estimate is 41,800, yielding a 95 percent confidence interval of ± 81,900. Ten percent of these adults indicated in their interview responses that they had children with them; analysis indicated 34,700 children, with a 95 percent confidence interval of ± 647. Less than half of one percent of the respondents in our study were under 18, since the facilities we sampled tended to discourage or refuse service to unaccompanied minors if they were aware of their age. Thus the runaway/homeless youth part of the homeless population is missing from our study sample.

My estimate of all homeless in the United States consists of two elements: 1) the 229,000 people estimated to be service users in cities of 100,000 or more (the 194,000 adults and their 35,000 children); 2) the homeless people who live in these cities but do not use soup kitchens or shelters, and those who live in other places.

Most counts of the homeless cover a one-night period and classify people either as in shelter or not. The biggest problem comes in estimating the size of the non-sheltered, or "street," population. Three aspects of our sampling and weighting procedures relate to the probable inclusion or exclusion of these "street" people, and are important for understanding my approach to estimating how many homeless people in our universe of cities do not use soup kitchens or shelters. These are: 1) the frequency of use adjustment; 2) "unduplication" of people who used both soup kitchens and shelters; 3) the inclusion in our data of people who use soup kitchens but who do not use shelters.

We made an adjustment for frequency of use of either soup kitchens or shelters, in the following manner. People interviewed in a shelter (soup kitchen) who said they used a shelter (soup kitchen) during each of the previous seven days received a weight of 1 (for this adjustment). Those who said they used the type of facility where they were interviewed only once during the previous seven days received a weight of 7. Intermediate use levels during the seven days preceding the interview received intermediate adjustments (e.g., a user for three days of the seven received a weight of 7/3). This adjustment rests on the assumption that utilization levels of the facilities were fairly constant during the month of March 1987 when data collection occurred—an assumption based on information obtained from providers in the facilities we sampled. It also rests on the assumption that infrequent users were replaced during the days they did not personally use the facilities by other people like themselves. We have no independent basis for this assumption, but it is the most conservative assumption we could make. Finally, the adjustment relies on the truthfulness of interview responses, for which we have no independent validation.

The frequency of use adjustment has the effect of increasing the count of people who use services less than seven days a week, many of whom would be counted as "street" people in any one-day count because they are not in shelters for that one day although they are still homeless. The frequency of use adjustment produces a seven-day estimate that is about 75 percent larger than our one-day estimate (194,000 adults vs. 110,000 adults). While there may be some challenge to using a frequency-of-use adjustment, I believe it *more adequately expresses the size of the whole homeless population*, since our data strongly suggest that the less frequent users of soup kitchens and shelters nonetheless remain homeless during the days of the week they do not use these services. Virtually all respondents in this study had been homeless for the entire week preceding the interview, yet their service use patterns reflected considerable variety, with some using soup kitchens, shelters or both every day of the week, and others using these facilities with varying frequency down to one day of the week.

We also "unduplicated" multiple service users. Anyone indicating that he or she had used both soup kitchens and shelters in the week preceding the interview received an adjustment weight to compensate for their increased probability of selection into the sample. While not directly related to whether or not we included people usually considered to be "street" homeless, this adjustment for multiple facility use does make an important correction to reduce the chances that our procedures overestimate the number of homeless.

Another way in which our procedures included "street" homeless was through inclusion of soup kitchens in our sampling frame of providers. As a consequence our sample includes a large proportion of individuals who do not use shelters but only use soup kitchens (25 percent in the 1-day estimate and 29 percent in the 7-day estimate). In our data these people are included as service users, although in other studies they would be counted as part of the street population.[1]

I believe that our methods, with the inclusion of soup-kitchen-only people and the adjustment for frequency of use, capture a very large proportion of all urban homeless adults—perhaps as high as 70-85 percent. I base this belief on the results of two efforts to survey homeless people found "on the streets"— our own, and Farr et al.'s (1986). In Farr et al.'s 1985 survey of the Los Angeles skid row homeless, homeless people were interviewed at shelters, soup kitchens and "congregating sites," which were public spaces such as parks, bus terminals, etc. where homeless people were known to congregate. Screening established the fact that fully 85 percent of the homeless screened at congregating sites had used either a soup kitchen or a shelter within the previous month. In the Urban Institute study, we undertook a similar procedure at five congregating sites in each of our 20 cities (100 sites in all). Of the 999 people screened at these sites, 47 percent (473) were homed, 45 percent (445) were homeless, and 8 percent (81) refused or broke off the interview. Of the 445 homeless persons identified, 303 had used either a soup kitchen or a shelter within the previous week, leaving only 142 (32 percent) as non-service users. My belief that our procedures probably capture 70-85 percent of the adult homeless in our cities stems from the results of these two studies.

MAKING THE ESTIMATES

I turn now to the actual procedures I used to develop the 500,000-600,000 estimates.

I began with a division of the U. S. population into three categories:

a. People in cities of 100,000 or more (this is the universe of cities for UI's 1987 study). This category comprises 25.4 percent of the 1986 U.S. population, or 61.2 million people.

b. People in the rest of MSAs containing cities of 100,000 or more who are not also in A., and people in other MSAs. This category comprises 51.2 percent of the 1986 U.S. population, or 123.5 million people.

c. People outside of MSAs. This category comprises 23.4 percent of the population, or 56.3 million people.

Looking First at A: Cities over 100,000

I began to build the estimate of all homeless people in the country by looking at A.

I started with the UI estimates of service users:

194,000 = 7-day estimate of homeless service-using adults in A.
35,000 = 7-day estimate of children attached to homeless service-using adults in A.
229,000 = Service users in A.

What to Assume about Children

I then had to make some assumptions about the ratio of service users to non-service users in A. The first assumption addressed the issue of the presence of children among non-users of soup kitchens and shelters. In the UI study the overall proportion of adults accompanied by children among the homeless was 10 percent. However, these children were overwhelmingly with adults who used shelters. Among the homeless who only used soup kitchens, only 3

[1]It is very unlikely that these soup-kitchen-only users were housed, since our screener eliminated housed individuals as part of the pre-interview process.

percent had children with them. As described above, we also collected data from a non-random sample of 142 street people who did not use either soup kitchens or shelters. None of these people had children with them (0 percent). Since I was trying to estimate the size of the non-service using population, it did not seem appropriate to assume that the proportion of street people who had children with them would resemble the proportion of sheltered people accompanied by children. I therefore made the assumption that only 1.5 percent of the non-service users in A had children with them — a rate half-way between the 3 percent we obtained for soup-kitchen-only people and the 0 percent we obtained for non-service users.

What to Assume about Non-Service-Using Adults

I made two alternative assumptions about the ratio of nonservice-using homeless adults in A to service-using homeless adults. The first was that there were half again as many adult non-users as users — one on the street for every two using soup kitchens or shelters. The second was that there were only one-quarter as many adult non-users as users — one on the street for every four using soup kitchens or shelters. In thus assuming that our survey methods had captured 67-80 percent of the homeless, I bracketed what I thought was the most likely range of our coverage, as explained above (p. 6).

Looking Next at B and C

The remainder of my estimating procedure rests on assumptions about the relationship of the rate of homelessness in B to that in A, and on the appropriate rate to use for C. In the first set of estimates, the rate in A would be 53.7/10,000 using the 2-to-1 user/non-user ratio, and 44.0/10,000 using the 4-to-1 user/non-user ratio. I assumed that the rate of homelessness in B was one-third of the rate in A, and that the rate of homelessness in C was 9/10,000. These two assumptions are the same as those made by the Committee for Food and Shelter, Inc. (1988) in their national estimate of the homeless. They came from analysis of data from Washington, DC indicating that the two wards with the most homeless (in 1985) had about 27/10,000, and that the remaining wards of the city had about one third that proportion, or 9/10,000 (Heintz, personal communication).

Both of these assumptions, on my part, were made before data were available for communities in B and C, and err in the direction of overestimating the size of the homeless population in B and C. Subsequently published or calculated data from rural areas show between 2.4 to 5.6 homeless persons per 10,000 population (for rural Ohio and Yolo County, CA, respectively— Roth et al. 1985; Vernez et al. 1988). Data from suburban areas show 7-10/10,000 or 3.6/10,000 homeless people (for Fairfax County, VA and Orange County, CA, respectively—Goplerud, 1987; Vernez et al. 1988). The final estimate in this paper takes these newer data into consideration to develop a somewhat lower estimate of the number of homeless persons.

Estimates Based on the 2-to-1 User-Non-User Assumption
(using 7-day Urban Institute figures)

194,000 = 7-day estimate of homeless service-using adults in A.
35,000 = 7-day estimate of children attached to homeless service-using adults in A.
229,000 = Service users in A.

97,000 = my guess about the number of non-service-using homeless adults in A, based on the assumption that the non-service-user adult population is half the size of the service-using adult population, or 33 percent of the total homeless adult population in A.

2,900 = my guess about the number of children accompanying these non-service-using homeless adults, assuming 1.5 percent of adults are accompanied by 2.0 children among non-users.

328,900 = Total number of homeless persons in A.
53.7/10,000 = rate of homelessness in A (328,900/6120).
17.9/10,000 = rate of homelessness in B.
9/10,000 = rate of homelessness in C.

	Number of people-1986	*Rate*	*Number of Homeless*
A.	61.2 million people	53.7	328,900
B.	123.5 million people	17.9	221,100
C.	56.3 million people	9.0	50,700
	241.0 million people		600,700

Estimates Based on the 4-to-1 User-non-user Assumption
(using 7-day Urban Institute figures)

194,000 = 7-day estimate of homeless service-using adults in A.
35,000 = 7-day estimate of children attached to homeless service-using adults in A.
229,000 = Service users in A.
39,000 = my guess about the number of non-service-using homeless adults in A, based on the assumption that the non-service-user adult population is one-fourth the size of the service-using adult population, or 20 percent of the total homeless adult population in A.

1,200 = my guess about the number of children accompanying these non-service-using homeless adults, assuming 1.5 percent of adults are accompanied by 2.0 children among non-users.

269,200 = Total number of homeless persons in A.
44.0/10,000 = rate of homelessness in A (269,200/6120).
14.7/10,000 = rate of homelessness in B.
9/10,000 = rate of homelessness in C.

	Number of people-1986	*Rate*	*Number of Homeless*
A.	61.2 million people	44.0	269,200
B.	123.5 million people	14.7	181,500
C.	56.3 million people	9.0	50,700
	241.0 million people		501,400

AN ALTERNATIVE APPROACH: USING THE 1-DAY URBAN INSTITUTE FIGURES

As an alternative approach to using 7-day figures for estimating the size of the total homeless population in A, I have used the 1-day rates from the UI study, focusing exclusively on the *sheltered* population rather than on the population of all service users. I include this approach to provide one method of estimation that is as close as possible to most other study methodologies, which use 1-night counts of the sheltered population and then try to come up with estimates for the "street."

We estimated there were 110,300 homeless adults and 26,000 homeless children in cities of 100,000 or more who used soup kitchens or shelters on any single day in March 1987 (users of both were "unduplicated" in the weighting procedure). With the 1-day estimates, it would not be appropriate to use the same assumptions (of 67 and 80 percent) that I used above for the proportion of the total homeless population captured by the UI methodology. Instead, I have based the 1-day estimates that follow on assumptions of 37 and 45 percent inclusion (that is, 1.6 or 1.4 non-*sheltered* adults for every *sheltered* adult).

These assumptions derive from the following facts from the 1987 UI study. Our 1-day count gives 82,600 adults and 25,500 children in shelters, leaving 53 percent of the 229,000 homeless service users (based on our 7-day estimate) unsheltered for that night. Because most children are in shelters (as explained above, and not counting runaway/homeless youth), the comparison of our 1-day and 7-day figures also implies that 58 percent of homeless *adults* were not found in shelters in the 1-day count. Thus even were we to assume that our 7-day figure captured the universe of homeless adults, we would have to use a multiplier for the 1-day rate of 1.4 "street" adults to every sheltered adult (115,600 to 82,600). Yet we know that there are some homeless adults who use neither soup kitchens or shelters. For lack of any better rationale, I have assumed their numbers are equivalent to the 27,700 adults who used soup kitchens but not shelters in our 1-day estimates (110,300 - 82,600), yielding a total of 132,200 unsheltered adults vs. 82,600 sheltered adults for a ratio of about 1.6 to 1.

Using the 1.6-to-1 Assumption

82,600 = 1-day estimate of homeless *shelter*-using adults in A.
25,500 = 1-day estimate of children attached to homeless *shelter*-using adults in A.
108,100 = Shelter users in A.
132,200 = my guess about the number of *unsheltered* homeless adults in A, based on the assumption that the unsheltered adult population is 1.6 times the size of the shelter-using adult population, or 63 percent of the total homeless adult population in A.

5,300 = my guess about the number of children accompanying these unsheltered homeless adults, assuming 2 percent of adults are accompanied by 2.0 children among non-shelter users.
245,600 = Total number of homeless persons in A.
40.1/10,000 = rate of homelessness in A (245,600/6120).
13.4/10,000 = rate of homelessness in B.
9/10,000 = rate of homelessness in C.

	Number of people-1986	*Rate*	*Number of Homeless*
A.	61.2 million people	40.1	245,600
B.	123.5 million people	13.4	165,500
C.	56.3 million people	9.0	50,700
	241.0 million people		461,800

Using the 1.4-to-1 Assumption

82,600 = 1-day estimate of homeless *shelter*-using adults in A.
25,500 = 1-day estimate of children attached to homeless *shelter*-using adults in A.
108,100 = Shelter users in A.
115,640 = my guess about the number of *unsheltered* homeless adults in A, based on the assumption that the unsheltered adult population is 1.4 times the size of the shelter-using adult population, or 58 percent of the total homeless adult population in A.

4,600 = my guess about the number of children accompanying these unsheltered homeless adults, assuming 2 percent of adults are accompanied by 2.0 children among non-shelter users.
228,340 = Total number of homeless persons in A.
37.3/10,000 = rate of homelessness in A (228,340/6120).
12.4/10,000 = rate of homelessness in B.
9/10,000 = rate of homelessness in C.

	Number of people-1986	*Rate*	*Number of Homeless*
A.	61.2 million people	37.4	228,300
B.	123.5 million people	12.4	153,100
C.	56.3 million people	9.0	50,700
	241.0 million people		432,100

The Effects of Using Alternative Assumptions

Obviously, any assumptions one changes will produce different results. To demonstrate the effects of changing some of the assumptions made above which might justifiably be challenged, I present two additional estimates, based on 7-day UI figures, that produce the smallest figures that might be defensible. The changed assumptions are:

1. The 7-day Urban Institute estimate is reduced by 15 and 9.5 percent for adult and child service users, respectively, to compensate for the estimated combined effects of three potential sources of bias described in Burt and Cohen (1988, Vol. II, Appendix B, pp 22-24).[2]
2. The rate of homelessness in C is assumed to be only 4/10,000. This rate is more in line with non-MSA rates from the only two available studies, which were published (or calculated by me) after I made my first estimates using 9/10,000.

Using 2-to-1 User-non-user Assumption

164,900 = revised 7-day estimate of homeless service-using adults in A.
31,700 = revised 7-day estimate of children attached to homeless service-using adults in A.
196,600 = Revised service users in A.
54,400 = my guess about the number of non-service-using homeless adults in A, based on the assumption that the non-service-user adult population is one-third the size of the service-using adult population, or 33 percent of the total homeless adult population in A.

[2]These three sources of bias were: 1) we used the ratio of the estimated number of clients to the screeners attempted rather than the skip interval in estimating the client's probability of selection on the day of the interviews, with a potential for upward bias of the estimate of 9.5 percent; 2) we could not make an adjustment for a client's potential use of more than one soup kitchen in a day, but rough estimates suggested this factor could upwardly bias the estimates by 5.3 percent at most; 3) we missed some voucher programs, for a potential downward bias of 0.2 percent.

1,600 = my guess about the number of children accompanying these non-service-using homeless adults, assuming 1.5 percent of adults are accompanied by 2.0 children among non-users.
252,600 = Total number of homeless persons in A.
41.3/10,000 = rate of homelessness in A (252,600/6120).
13.8/10,000 = rate of homelessness in B.
4/10,000 = rate of homelessness in C.

	Number of people-1986	*Rate*	*Number of Homeless*
A.	61.2 million people	41.3	252,600
B.	123.5 million people	13.8	170,400
C.	56.3 million people	4.0	22,500
C.	241.0 million people		445,500

Using the 4-to-1 User-non-user Assumption

164,900 = revised 7-day estimate of homeless service-using adults in A.
31,700 = revised 7-day estimate of children attached to homeless service-using adults in A.
196,600 = Revised service users in A.
32,900 = my guess about the number of non-service-using homeless adults in A, based on the assumption that the non-service-user adult population is one-fourth the size of the service-using adult population, or 20 percent of the total homeless adult population in A.
1,000 = my guess about the number of children accompanying these non-service-using homeless adults, assuming 1.5 percent of adults are accompanied by 2.0 children among non-users.
198,800 = Total number of homeless persons in A.
32.5/10,000 = rate of homelessness in A (198,800/6120).
10.8/10,000 = rate of homelessness in B.
4/10,000 = rate of homelessness in C.

	Number of people-1986	*Rate*	*Number of Homeless*
A.	61.2 million people	32.5	198,800
B.	123.5 million people	10.8	133,400
C.	56.3 million people	4.0	22,500
	241.0 million people		354,700

References

Burt, Martha R. "Projections of our Estimate of Service-using Homeless People in all U.S. Cities of 100,000 or More to All Homeless People in the United States." Washington, DC: The Urban Institute, 1988.

Burt, Martha R. and Cohen Barbara E. *America's Homeless: Numbers, Characteristics, and the Programs that Serve Them.* Washington, DC: The Urban Institute Press, 1989.

Burt, Martha R. and Cohen, Barbara E. *Feeding the Homeless: Does the Prepared Meals Provision Help?* Washington, DC: The Urban Institute, 1988.

Farr, Rodger K., Koegel, Paul and Burnam, Audrey. *A Study of Homelessness and Mental Illness in the Skid Row Area of Los Angeles.* Los Angeles: Los Angeles County Department of Mental Health, 1986.

Goplerud, Eric. "Homelessness in Fairfax County." Fairfax, VA: George Mason University, Department of Sociology, 1987.

Committee for Food and Shelter, Inc. "Characteristics and Housing Needs of the Homeless." Washington, DC:, Committee for Food and Shelter, Inc., 1988

Roth, Dee, Bean, Jerry, Lust, Nancy, Saveanu, Traian. *Homelessness in Ohio: A Study of People in Need.* Columbus, OH: Ohio Department of Mental Health, 1985.

Vernez, Georges, Burnam, M. Audrey, McGlynn, Elizabeth A., Trude, Sally and Mittman, Brian. *Review of California's Program for the Homeless Mentally Disabled.* Santa Monica, CA: Rand Corporation, 1988.

The Nashville Method

Barrett A. Lee
Department of Sociology, Pennsylvania State University

Little questions often inspire big debates. Recent research on the "new homelessness" provides ample proof of this maxim. Five words—how many homeless are there?—have given rise to a major controversy and to conferences like the present one that seek to address it. Following Hombs and Snyder's (1982) assertion that 1 percent of the total U.S. population was homeless in the early 1980s, several attempts have been made to estimate the extent of the problem at the national level (Burt and Cohen 1988; Freeman and Hall 1986; National Coalition for the Homeless 1987; U.S. Conference of Mayors 1987; U.S. Department of Housing and Urban Development 1984). The divergent findings and interpretations yielded by these studies have only served to fan the flames of the controversy. Those flames are not likely to be extinguished by the Census Bureau once the results of its heavily publicized 1990 "S-night" (street and shelter) count become available.

While national studies are clearly important, their significance lies as much in the symbolic as the policy realm. Indeed, one could argue that such efforts amount to empirical referenda on the success of our society in meeting its citizens' needs. Local investigations, by contrast, are more narrowly pragmatic in function. The purpose of enumerating or surveying a homeless population of a city, county, or state is usually to facilitate program planning or service development and delivery. Because this kind of research helps in a direct way to "get things done," its design—though less subject to scrutiny than that of a nationwide inquiry—is critical. Unfortunately, resource constraints pose a constant threat to the quality of homelessness research at the local level.

The remainder of my presentation considers the issue implicit in doing small-scale, locally focused (and financed) studies. Specifically, can they produce credible results? Are they worth conducting, in view of the limited money, time, and expertise invested in them? I will proceed by evaluating a single case—an ongoing enumeration project in Nashville, Tennessee—briefly reviewing its procedures, findings, strengths, and weaknesses. Admittedly, my credentials as a critic are suspect, since I was deeply involved in the project under examination. I no longer live in Nashville, however, and gradually disengaged myself from all enumeration activity over the past few years. Thus, I am at least potentially capable of stepping back and taking a detached look.

Background to the Research

Nashville is much more than the country music capital these days. According to current figures, it ranks twenty-sixth in population size among the nation's central cities, and has nearly one million residents within its metropolitan area (U.S. Bureau of the Census 1990). Like other New South cities, Nashville receives favorable marks for its diversified economy, warm climate, and high quality of life. This relative prosperity makes homelessness a particularly poignant problem there.

Certain factors contributing to homelessness in Nashville are peculiar to the setting. For example, a small number of Nashville's homeless people initially arrive in town with guitars and lyrics in hand, pursuing an ill-fated dream of recording stardom. Some of the seven million tourists visiting the city each year also wind up penniless and stranded, as do migrants attracted by employment opportunities for which they lack the requisite skills. But a much greater percentage of the homeless become that way because of structural conditions that Nashville has in common with other large places. These include: 1) a dwindling supply of unskilled jobs,

2) a safety net of social services insufficient to catch all who cannot take care of their own needs, and 3) a sizeable pool of "troubled" individuals at risk of slipping into homelessness upon their release from hospitals, correctional facilities, and mental health centers.

Perhaps the major source of homelessness in Nashville, as in many cities, has been the contraction of affordable housing. While the housing shortage is now recognized as affecting the entire metropolis (United Way of Middle Tennessee 1987), it first reached the acute stage in the central business district. In 1970, 12 SRO hotels were still open downtown, containing a total of 1,695 low-cost units. By 1985, however, only one small hotel with 15 units remained, thanks to escalating land prices and the construction of office buildings, parking lots, and a convention center (Nashville Coalition for the Homeless 1988). This SRO housing squeeze pushed poor people onto the streets and into the public's consciousness.

The heightened visibility of Nashville's homeless began to attract serious attention from the community at large in 1982. A group of downtown merchants registered strong complaints then, and have several times since, that homeless loiterers were bad for business. During the same year, service providers expressed concern over a rapidly escalating demand for emergency shelter, clothing, and food. At the urging of the mayor and other civic leaders, the Council of Community Services, a local social service umbrella organization, formed a task force to examine the issue. That task force evolved into the Nashville Coalition for the Homeless (hereafter the Coalition), the group responsible for sponsoring and implementing the enumeration project. The initial enumeration was conducted in December of 1983 with a definite purpose in mind: to obtain descriptive data on the city's homeless population that could be used in support of a grant proposal to establish a free health clinic.

Enumeration Procedures

What sets the Coalition apart from other local research teams is that it did not stop counting the homeless after one round. To date, 13 more enumerations have been undertaken, on or about June 20 and December 20 of each year.[1] By including a warm and a cold month annually, possible seasonal fluctuations in the size and composition of the homeless population can be monitored. Scheduling the counts late in the month is intended to capture episodes of cyclical homelessness. Some individuals, for instance, may be able to afford lodging at the beginning of a month, right after their pension or welfare checks arrive, but quickly exhaust such resources and are back on the street by month's end. Thus, the timing of the enumerations increases the chances that the population is counted while in a full or complete phase.

In several respects, the basic design of the Nashville enumerations resembles that of the Census Bureau's S-night operation. First, enumeration activities are confined to a single night. This feature yields fairly clean "snapshots" or point estimates, as opposed to cumulative figures that defy easy translation into practical units of service demand. Second, the enumerations are restricted spatially as well as temporally. At a minimum, all counts have covered a 180-block, four-square-mile downtown district where the homeless congregate. In 1986, the Coalition decided to extend the study domain beyond downtown to include a growing number of shelters and service facilities located in outlying areas. For recent years, then, enumeration data are available for both core and peripheral segments of the homeless population.

A third feature that the Nashville project shares with S-night is the distinction between shelter and street counts. On the date of the enumeration, staff persons at rescue missions, transient shelters, domestic violence centers, alcoholism treatment programs, youth homes, and similar bed-providing facilities serve as informants. The staffers, who are often Coalition members, keep a tally of their overnight clients by sex, race, and age (less than 18, 18 to 59, and 60 or older). When the clientele is mixed, including non-homeless as well as homeless components,

[1]During the first year (1983-84) of the project, enumerations were conducted on a quarterly basis (i.e., in March and September as well as in December and June). Since the March and September results do not differ appreciably from those for the other two months, they have been excluded from further consideration here.

staffers record information only for those individuals who would be without a place to live if discharged the next day. This information is passed along by phone to a central collection point, usually the Coalition's offices, the morning of the enumeration.

Compared to the shelter count, the street count is a complicated affair. Between five and eight teams, each consisting of two to four members, systematically scour the full range of nonshelter locations where homeless persons might spend the night. Among the types of sites searched are riverbank encampments,[2] abandoned buildings, alleys, parked cars, bus stations, coffee shops, hospital waiting rooms, and railroad yards and rights of way. Though the street count effort concentrates on the downtown core, one team is assigned to peripheral places, including Nashville's Music Row area and several of the bigger city parks.

All of the teams try to be as unobtrusive as possible, gathering data solely on the basis of observation. There is no direct contact with the homeless, most of whom are sleeping when observed. This fact precludes the use of a screening interview to determine if someone is truly homeless or not. Instead, enumerators rely on visual cues: ill-fitting clothing, bundled belongings, weathered appearance, and all manner of idiosyncratic behaviors. Since many enumerators are street-level service providers of some sort (shelter staff, outreach workers, etc.), they can frequently bypass such cues, recognizing the faces—and often recalling the names—of individuals who have recently been clients.

The observational character of the enumerations is dictated in part by their timing, which constitutes yet another similarity to S night. The street count runs from 3:30 to 5:30 AM, and the shelter count pertains to those homeless "in house" during the same hours. By conducting the enumerations in the early morning—when the homeless population is presumably least mobile and its indoor and outdoor segments are most separate—the risk of double counting should be reduced. As a further precaution, the study area has been divided into geographic zones. Each street-count team, armed with a map, is assigned to a zone and instructed not to leave it. In theory, the creation of mutually exclusive territories means that different teams do not count the same homeless person twice. Of course, there is nothing to prevent a homeless subject from wandering across zone boundaries. To help detect such an event, the enumeration form has spaces in which the time and location of all "sightings" are recorded. That information, along with the demographic details on the form, allows likely crossovers to be discounted during the final tabulation of results.[3]

Overview of Findings

When used in concert, what do the procedures just described tell us about the demography of homelessness in Nashville? Since a detailed answer to this question has already been given elsewhere (Lee 1989), I will limit myself to a summary of major findings. Table 1 presents size estimates for core (downtown) and total populations, as well as percentage changes in size from the preceding count and the same month. On average, the enumerations have uncovered 713 homeless in the core area and a total of 934 when core and peripheral locations are combined. Such averages obscure numerous ups and downs over time (second and third columns), about which more will be said later. For the moment, the most important point to be made is that the population has grown (by 26 percent from June 1986 to June 1990; by 14 percent from December 1986 to December 1989), but not as dramatically as public opinion would suggest.[4] In fact, the number of homeless downtown has remained remarkably constant, falling in the 620-740 range for all June counts and the 660-820 range for all December ones.

[2]The Cumberland River bisects Nashville, forming the eastern boundary of the city's central business district.

[3]In addition to these formal preventive measures, several instances of doublecounting have been discovered as enumerators compared notes at the traditional post-enumeration breakfast.

[4]In a 1987 telephone survey, Nashville residents were asked how they thought the local homeless population had changed in size. More than four-fifths believed it had grown rapidly while less than 1% thought a decrease had taken place (Lee 1988).

Table 1. Size of Nashville Homeless Population, 1983-1990

Date	Population	Percent change from: Last count	Same month
Core Population[a]			
December 1983	820	---	---
June 1984	689	−16.0	
December 1985	714	3.6	−12.9
June 1986	657	−8.0	−4.6
December 1986	741	12.8	3.8
June 1987	695	−6.2	5.8
December 1987	749	7.8	1.1
June 1988	621	−17.1	−10.6
December 1988	790	27.2	5.5
June 1989	740	−6.3	19.2
December 1989	657	−11.2	−16.8
June 1990	687	4.6	−7.2
December mean	745	8.0	−3.9
June mean	681	−8.2	.5
Grand mean	713	−.8	−1.7
Total Population[b]			
June 1986	764	—	---
December 1986	901	17.9	---
June 1987	835	−7.3	9.3
December 1987	1052	26.0	16.8
June 1988	791	−24.8	−5.3
December 1988	1081	36.7	2.8
June 1989	995	−8.0	25.8
December 1989	1028	3.3	−4.9
June 1990	963	−6.3	−3.2
December mean	1015	21.0	4.9
June mean	870	−11.6	6.6
Grand mean	934	4.7	5.9

[a]Limited to homeless enumerated in 180-block downtown area.
[b]Includes homeless enumerated in peripheral locations as well as downtown area.

An equally surprising conclusion can be drawn about the composition of Nashville's homeless. As in other places, local advocates and media representatives have emphasized the growth of "new homeless" groups—particularly women, blacks, and children—and have claimed that suc groups now constitute large proportions of the population. Yet the data in Table 2 tell a different story. Males and whites predominate, and there are few children or seniors; if anything, the makeup of homelessness in the city conforms more closely to a skid row than a new homeless profile. Further, that profile appears to be stable. Aside from the slowly declining representation of whites in the total population, implying an increase in black homeless people, few long-term trends are evident.[5]

[5]The sharp decline in the percentage of seniors between June 1984 and December 1985 can be attributed to the closure of Nashville's last three sizeable SRO hotels. These facilities had housed a number of elderly in their transient rooms prior to that time.

Table 2. Composition of Nashville Homeless Population, 1983-1990

Date	Percent of population:			
	Male	White	< 18 years	60 + years
Core Population[a]				
December 1983	81.5	71.8	4.6	21.7
June 1984	83.0	73.1	7.1	27.1
December 1985	89.1	63.9	4.5	5.9
June 1986	88.3	80.2	6.7	7.0
December 1986	89.7	80.0	2.4	7.0
June 1987	89.4	80.7	3.3	7.3
December 1987	87.3	74.8	5.7	10.0
June 1988	86.6	75.0	5.1	7.1
December 1988	89.9	69.9	3.2	7.9
June 1989	85.7	68.1	3.8	7.3
December 1989	86.8	70.3	3.0	6.4
June 1990	89.2	68.7	2.6	8.9
December mean	87.4	71.8	3.9	9.8
June mean	87.0	74.3	4.8	10.8
Grand mean	87.2	73.0	4.3	10.3
Total Population[a]				
June 1986	84.7	80.5	10.2	6.8
December 1986	85.9	78.5	8.5	6.8
June 1987	84.7	79.0	7.3	6.6
December 1987	81.6	73.8	11.1	8.2
June 1988	80.2	73.8	11.4	5.8
December 1988	83.9	70.3	7.3	6.5
June 1989	79.8	69.3	9.2	6.2
December 1989	81.2	69.6	9.8	4.8
June 1990	81.3	69.1	11.6	6.7
December mean	83.1	73.0	9.2	6.6
June mean	82.1	74.3	9.9	6.4
Grand mean	82.6	73.8	9.6	6.5

[a]See notes to Table 1 for core/total distinction.

Finally, the enumeration data shed light on two distinct dimensions of locational distribution. In the first and second columns of Table 3, shelter-to-street ratios are reported for core and total populations. The grand means at the bottom of the table indicate that approximately six persons have been counted indoors for each one counted outdoors. Not unexpectedly, the December means almost double those for June, when warmer weather makes outdoor sleeping feasible. Beyond such seasonal fluctuations, the shelter-to-street ratios are of interest because they contrast with the results from earlier studies in Boston, Phoenix, and Pittsburgh that produced ratios well below unity (U.S Department of Housing and Urban Development 1984: 17). My impression is that the distribution of the homeless across shelter and street locations varies markedly from city to city.

The second distributional dimension—the degree to which homeless people are concentrated in the center of the city—receives attention in the last column of Table 3. Based on the nine enumerations that have attempted to capture the total population, there are three to four times as many homeless in core as peripheral sites. Note, however, that the core-to-periphery ratio has declined steadily, from a high of 6.1 in June 1986 to a low of 1.8 in December 1989. This spatial dispersion of the population has been driven by the establishment of new shelters and the relocation of existing facilities in outlying areas.

Table 3. Location of Nashville Homeless Population, 1983-1990

Date	Shelter/street ratio[a] for:		Core/periphery ratio[c]
	Core population[b]	Total population[b]	
December 1983	13.6	---	---
June 1984	7.3	---	---
December 1985	5.7	---	---
June 1986	3.1	3.8	6.1
December 1986	5.9	7.3	4.6
June 1987	2.3	2.7	5.0
December 1987	5.1	7.5	2.5
June 1988	3.0	3.9	3.6
December 1988	5.0	6.9	2.7
June 1989	4.4	5.9	2.9
December 1989	8.4	13.7	1.8
June 1990	4.2	6.2	2.5
December mean	7.3	8.8	2.9
June mean	4.0	4.5	4.0
Grand mean	5.7	6.4	3.5

[a]Number of homeless in missions, shelters, hotels + number outdoors, in abandoned buildings, bus stations, coffee shops, etc.
[b]See notes to Table 1 for core/total distinction.
[c]Number of homeless in downtown area + number elsewhere in city.

Strengths and Weaknesses

The amount of faith to be placed in any set of findings is a nontrivial concern, especially if the group of interest proves difficult to study. The enumerations on which my conclusions about Nashville's homeless rest have several things going for them, in addition to the careful procedures employed. Sponsorship by the Coalition is a definite plus from both an administrative and a data quality standpoint. The Coalition's positive reputation encourages the cooperation of missions, shelters, and other agencies that house the homeless. Because virtually all of those agencies belong to the Coalition, its organizational membership comprises a built-in network of contacts critical to the implementation of the shelter count. Moreover, the Coalition's individual membership provides an adequate supply of enumerators who work with the homeless on a daily basis. The experience of the enumerators is matched by their dedication to the cause; they volunteer for early-morning street count duty. Obviously, such willingness enables research costs to be held to a minimum.

The nature of the homeless population in Nashville is another advantage. Its moderate size keeps enumeration manageable, as does its relatively high degree of geographic concentration. Indeed, the searches carried out by the street count teams would probably not be possible with a widely dispersed population. The shelter count also benefits from the demographic dimensions of homelessness in the city, at least indirectly. Limited numbers mean a limited demand for services and, ultimately, a limited infrastructure; only 25-30 agencies provide any kind of overnight accommodations for the homeless. These can be contacted within a few hours on enumeration day.

Despite their advantages, the enumerations remain far from perfect, largely for reasons common to most studies of homelessness. As all seasoned investigators know, homeless people are hard to find. The Nashville data suggest that this is especially true during the warmer parts of the year. An examination of the middle column of Table 1 reveals alternating positive and negative changes: on average, the population swells by 21 percent from June to December, then shrinks by over 11 percent from December to June. In my opinion, such changes are more artifactual than real. What happens is that a higher percentage of homeless sleep outdoors in June, and some of them actively hide or otherwise elude detection. In chilly

December they move indoors, becoming easier to count. (Compare June and December shelter/street ratios in Table 3.) As a consequence, enumerations conducted in different months cover the homeless population more or less thoroughly.

Besides missing some homeless subjects inside the study area, the Nashville enumerations by design exclude certain outlying groups altogether. From time to time, knowledgeable informants have reported the presence of "hobo" camps far from the city's center. Informal shelter practices are also known to exist, such as small churches in black neighborhoods permitting down-and-out members to sleep in their sanctuaries. Numerically, however, the most significant of the excluded groups has to be the "doubled-up" homeless. Persons staying temporarily with relatives or friends but without a permanent residence of their own are nearly impossible to count. Thus, in Nashville—as in other places—there has been no attempt to do so.

The type of door-to-door effort required to estimate the extent of doubling up would make the enumerations prohibitively expensive. It would also make them more labor intensive than they already are. One disadvantage of the street count is that a large number of person-hours are consumed in covering a relatively small territory. Imagine the staff needed to use the same approach in New York or Washington or Los Angeles, where the homeless occupy huge turfs, or in rural regions with scattered pockets of homelessness. In settings like those, investigators would be wise to consider site sampling (Rossi et al. 1986) and capture-recapture techniques (Cowan et al. 1986), among other alternatives.

A problem with the Nashville methodology that most studies avoid is the lack of verbal interaction between enumerators and the persons they are counting. Though purely observational work takes less time than a survey, the heavy reliance on enumerator judgment (as opposed to screening questions) introduces an element of ambiguity into the identification process: even veteran enumerators may sometimes have difficulty recognizing a homeless individual when they see one. And if they do not talk to that individual, the amount that can be learned about him or her will be minimal. Put differently, the data yield from an enumeration of the Nashville variety is sparse by survey interview standards.

Conclusion

General lessons are hard to discern from a single case. Nevertheless, my assessment of the Nashville enumeration project suggests that sound research on homelessness can be conducted at the local level. Even in the absence of abundant funding, other resources—interest, time, commitment, and expertise—may be sufficiently available in a community to produce a credible, cost-efficient strategy and to sustain it over an extended period.

For municipalities that are considering a count of their homeless, two caveats come to mind. First, the procedures described here probably work best in places that resemble Nashville, i.e., that are similar in scale, have similar types of homeless populations, and enjoy a degree of organizational leadership and coordination similar to that provided by the Coalition. Second, policy makers and others likely to consume enumeration data should be forewarned that the procedures consistently err on the conservative side. Given the segments of the homeless missed or excluded, enumeration-based estimates of size are correctly interpreted as "lower bound" in nature. Such a property has a beneficial effect: it renders the results more defensible—and, I believe, more effective politically—than the transparently inflated numbers to which well-intentioned advocates often resort.

References

Burt, Martha R. and Barbara E. Cohen. 1989. *America's Homeless: Numbers, Characteristics, and the Programs that Serve Them.* Washington, DC: Urban Institute.

Cowan, Charles D., William R. Breakey, and Pamela J. Fischer. 1986. "The Methodology of Counting the Homeless." Pp. 170-75 in *1986 Proceedings of the American Statistical Association: Section on Survey Research Methods.* Alexandria, VA: American Statistical Association.

Freeman, Richard B. and Brian Hall. 1986. "Permanent Homelessness in America?" Working Paper No. 2013. Cambridge, MA: National Bureau of Economic Research.

Hombs, Mary Ellen and Mitch Snyder. 1982. *Homelessness in America: A Forced March to Nowhere.* Washington, DC: Community for Creative Non-Violence.

Lee, Barrett A. 1988. *Public Views on Homelessness: Findings from a Survey of Nashville Residents.* Nashville: Metropolitan Social Services of Nashville-Davidson County and Tennessee Department of Human Services.

_____. 1989. "Stability and Change in an Urban Homeless Population." *Demography* 26:323-34. Nashville Coalition for the Homeless. 1988. *Nashville's SRO Hotels.* Nashville: Nashville Coalition for the Homeless.

National Coalition for the Homeless. 1987. *Pushed Out: America's Homeless, Thanksgiving, 1987.* Washington, DC: National Coalition for the Homeless.

Rossi, Peter H., Gene A. Fisher, and Georgianna Willis. 1986. *The Condition of the Homeless of Chicago.* Amherst, MA: Social and Demographic Research Institute, University of Massachusetts.

United Way of Middle Tennessee. 1987. *Nashville Needs Assessment: A Comprehensive Study Identifying the Human Service Needs of Our Community.* Nashville: United Way of Middle Tennessee.

U.S. Bureau of the Census. 1990. *Statistical Abstract of the United States: 1990.* Washington, DC: Government Printing Office.

U.S. Conference of Mayors. 1987. *The Continuing Growth of Hunger, Homelessness, and Poverty in America's Cities: 1987.* Washington, DC: U.S. Conference of Mayors.

U.S. Department of Housing and Urban Development. 1984. *A Report to the Secretary on the Homeless and Emergency Shelters.* Washington, DC: Office of Policy Development and Research, U.S. Department of Housing and Urban Development.

Lessons from the 1985-1986 Chicago Homeless Study

Peter H. Rossi
Social and Demographic Research Institute
University of Massachusetts
Amherst, MA 01003

INTRODUCTION

Hindsight is reputed to enjoy 20-20 vision: accordingly, the ideas presented here will be clearer than the ones with which my colleagues[1] and I designed and carried out our pioneering study of the homeless of Chicago[2]. This paper will provide a brief recapitulation of the design we used to survey the Chicago homeless. It will also present my current assessment of the adequacy of our design and of what we learned from that attempt that could materially improve future attempts to carry out surveys of that sort.

The 1985-86 Chicago Homeless Study

The basic forms of the Chicago Homeless Study (CHS) had two roots: my colleagues and I at the Social and Demographic Research Institute (SADRI) were approached by the Robert Wood Johnson Foundation in 1958 to provide strategies for evaluating the medical clinics for the homeless being funded in almost a score of cities by the foundation. We advised them that about the best that could be done for their clinics was to establish a good monitoring system that would enable each clinic to enumerate its clients, their characteristics and the kinds of medical care provided[3]. In addition, we suggested to them that they fund research on how best to measure the extent of homelessness in localities so that denominators might be calculated for their clinic populations. Our proposal to them suggested a survey effort much like the one eventually undertaken, but in Boston. At about the same time, researchers at the National Opinion Research Center (NORC) in Chicago had proposed (unsuccessfully) a similar survey in New York to several foundations. When NORC heard that the Robert Wood Johnson Foundation had expressed interest in our preliminary proposal, they sugggested that we join forces and conduct the survey in Chicago. They indicated that the Illinois Department of Public Aid was willing to provide some of the funding. My colleagues and I agreed to the collaboration eagerly. The extra funding appealed to the foundation and we believed that NORC's expertise would enhance materially the chances for a successful project. Accordingly, the Robert Wood Johnson Foundation grant was given to SADRI and we subcontracted to NORC. The subcontract was supplemented by funds directly to NORC from the Illinois Department of Public Aid.

The central purposes of the study were: 1) to develop a valid, replicable and economical method for sampling the homeless in a locality as the basis for computing unbiased estimates of the size of that population; and, 2) to describe the social, economic, and health conditions of the homeless. We initially proposed to undertake three surveys in Chicago, spaced sufficiently far apart in time to estimate seasonal variations in homelessness[4].

---

[1]Gene A. Fisher was co-Principal Investigator. We were ably assisted by Georgianna Willis, who served as our research associate. In addition, there were many persons on the staff of NORC, Social Research Center, who played critical roles in many phases of the study including Dr. Martin Frankel, Dr. Sarah Loevy, and Dr. Mary Utne O'Brien.

[2]The Chicago Homeless Study is described in detail in Peter H. Rossi, Gene A. Fisher and Georgianna Willis, *The Condition of the Homeless of Chicago*, 1986 Social and Demographics Research Institute and NORC, A Social Research Center, Amherst MA and Chicago IL. The study also forms the centerpiece of Peter H. Rosssi *Down and Out in America: The Origins of Homelessness*, 1989, The University of Chicago Press Chicago, IL. Appendix B also presents much of the technical details of survey design and population estimation procedures.

[3]The foundation provided funds for SADRI to design and operate an MIS system that funnelled data on all clients served by the medical clinics. Some of the major findings are to be found in James D. Wright and Eleanor Weber, *Homelessness and Health*, 1988, McGraw Hill: New York.

[4]We also had in mind applying capture-recapture estimation methods using the overlap between pairs of surveys. Three samples would also allow some estimation of flows into and out of the homeless population.

Conventional surveys are based on samples of structures and dwelling units, a strategy that misses anyone without some conventional dwelling unit. Thus, we proposed a strategy that was like a photographic negative of conventional procedures, namely a probability based area sample of non-dwelling unit places. We defined our universe as all adults who on a given night had no dwelling unit to which they had legal or customary access rights[5]. We further divided that universe into two parts: "shelter homeless" population, consisting of all persons housed in shelters provided predominantly for homeless persons[6]; and a "street homeless" population consisting of homeless persons not in shelters. We designed two sampling operations, one for each subuniverse.

Designing the shelter survey was comparatively simple. We planned to list the universe of shelters, obtain direct counts or estimates of their bed capacities, and pick a sample of shelters with probabilities proportionate to size. Within shelters, we planned to pick a systematic sample of residents from existing rosters or ones compiled especially for our survey.

The street survey was more difficult. It was to be a sample of census blocks, each of which was to be "swept" by a team of interviewers who were to inspect every non-dwelling space on that block, screening all persons encountered for homelessness. Interviewers were told to systematically enter and walk through all public access places— halls, garages, abandoned buildings, examine all parked vehicles for occupancy, and to penetrate all structures until they encountered a locked door or the social equivalent thereof (managers, proprietors, guards, etc.). All persons encountered were to be queried whether each was homeless.

We planned both the street and shelter surveys as nighttime operations. The shelters were to be approached after closing for the night and before residents were asleep. The street blocks were to be swept from 1 AM to 6 AM. This timing strategy was adopted to minimize the screening task and to provide maximum separation between the street and shelter populations.

Because costs were driven mainly by the street sample, we tried to stratify all the census blocks in the city of Chicago ex ante by the expected numbers of homeless to be found on those blocks in the middle of the night. There were no existing estimates of such expected numbers, and so we had to gather them by surveying presumably knowledgeable persons. We used the community relations officers of each Chicago police precinct[7] to classify each block in the precinct area into one of three size categories. In addition, as a check on police knowledge, we surveyed so-called homeless experts to locate "high density" blocks, ones with relatively large numbers of homeless persons congregating there nightly. Within each size stratum, we picked blocks at random with probabilities proportionate to the expected number of homeless to be found in the blocks of each stratum. We planned to use teams of interviewers accompanied by off-duty Chicago police (without uniforms) who we hired to provide protection for our interviewers[8]. NORC hired and trained the interviewers as well as drew the sample.

Table 1 provides details about the overall sample design for the two sub-universes. Note that the sample sizes for the two surveys differ. We planned the Fall street survey based on an expectation that there were somewhere between 5,000 and 10,000 homeless in Chicago, most of whom would be in the street universe. Since we could not find such a large number, the

[5]This definition of homelessness is what we were later to call the "literally homeless," recognizing a category of "precariously housed" persons with tenuous claims on conventional dwelling units.

[6]This definition excluded persons, inter alia, in shelters that were primarily detoxification units, shelters for battered women, the chronically mentally ill, and persons in jails or hospitals.

[7]Several other organizations were considered and rejected either because their knowledge of the city was partial or centered on daytime characteristics, for example, United Parcel Service or Illinois Bell. We settled on the police department because it was the only institution in Chicago that had detailed information on a block-by-block basis for the entire city of Chicago. In addition, as a 24-hour-a-day operation, we believed the police could distinguish between nighttime and daytime densities of homelessness.

[8]The criticism is often made that hiring police affect respondents in the street sample. There is no way we can tell whether that criticism was justified. However, we did direct our interviewers to make note of any person who managed to evade their approaches, as shown in Table 2.

block sample for the Fall survey was too small, as shown by the large standard errors for the estimates derived (See Table 2). Accordingly, we enlarged the sample for our second survey. Nevertheless, the increase was insufficient to compensate entirely for the seasonal drop in the size of the street homeless population.

Homeless persons in shelters were approached to be questioned using a 30-minute questionnaire. Each respondent was paid $5.00 for giving an interview. On the streets, each person encountered in a block sweep, was offered $1.00 to answer a short screening questionnaire. Persons determined to be homeless were then offered an additional $4.00 to answer the same 30-minute questionnaire used for the shelter sample.

The implementation experiences of both surveys are shown in Table 3. Despite dire predictions from "experts" that the homeless would be hard to interview, our experience was otherwise. Sample completion rates, as shown in Table 3, were at least as good as those obtained by the best conventional surveys and certainly above average for all surveys.

Of course, we had no ex ante experiences upon which to base calculations of realistic budgets for the surveys. Our first survey, conducted in a two-week period centered around October 1, 1985, almost completely exhausted our initial grant. Fortunately, the Robert Wood Johnson Foundation, aided by the Pew Memorial Trust, provided funds for an additional survey conducted in a two-week period centered around the first of February 1986. The second survey used the same strategy but a larger sample of blocks (Table 1). We also had similar implementation experiences in the second survey (Table 3). The 1986 samples of shelters and streets were drawn independently.

The two surveys provided the basis for two estimates of the homeless population of Chicago (Table 2). In addition, we gathered a great deal of descriptive data in the interviews. Especially important were interview data on the income of the homeless and on the sources from which income was obtained.

A Critical Appraisal of CHS

As indicated earlier in this paper, The Chicago Homeless Survey had two major goals: to produce a socio-economic portrait of the homeless and to produce estimates of the size of that population. When we issued our report in August 1986, not much attention was paid initially to the descriptive materials: rather, the focus of media attention was on our estimates on the size of the homeless population. Although we believed that our two surveys provided the only (to that time) credible, defensible estimates of the size of the literally homeless population of Chicago, those estimates were met with considerable distrust and outright hostility. Before our surveys, the Chicago homeless advocates had been "guesstimating" the number of homeless persons variously as 15,000, 20,000 and as high as 25,000. Our study showed the number to be from one-sixth to one-tenth those estimates. The advocates claimed that we did not count the "hidden homeless," those living doubled up, the part-time homeless, and other groups of homeless persons. Thus, they felt we had proceeded in a faulty manner to produce unbelievably low estimates. Particular criticism was levelled at our use of the police to obtain block stratification data and to guard the safety of our interviewers. We were also criticized for producing estimates that would lull the Illinois and Chicago political elite into believing that there was no homelessness problem in that city. There were even hints that we manufactured the estimates to suit the political needs of the Illinois Department of Public Aid.

Clearly, in the short run, the CHS was a political failure. Enough unfavorable comments were produced (and published) about our study to produce a notable drop in the cordiality of our sponsors. As in most media coverage of the homelessness issue, the media discussion was dominated by the advocates. Newspapers, television and radio thrive on controversy and the

homeless advocates were all too willing to oblige. After we produced our report[9], there was no discussion, as had been planned, of conducting additional surveys in the other cities in which medical clinics for the homeless had been funded by our sponsors.

As a life-long political liberal, I found myself in the uncomfortable position of being solicited by conservative political journals to contribute articles and shunned by liberal journals[10]. An aura of alleged shoddiness and incompetence began to appear around mentions of CHS. In public meetings concerned with homelessness I attended in the year after the release of the report, persons otherwise cordial and friendly appeared cold and distant.

In contrast, other researches have had a much more favorable reception in Chicago and in other cities[11]. In part, other researchers avoided difficulties by not attempting to make estimates of the size of the homeless population[12]. But more importantly, I believe that some large portion of the responsibility for this poor reception among advocates lies in our failure to properly build a supportive constituency for our study among advocates and Chicago's political elite. That such would have been difficult to do from my base in western Massachusetts, and that it should have been done nevertheless, is acknowledged.

It also cannot be said that CHS was a successful search for an economical approach to the estimation of the size of the homeless population. In round numbers, the two surveys cost more than $500,000, of which the major portion, about $400,000 was spent by NORC in the two field operations in Chicago. The remainder supported the design and analysis staff at SADRI. Although I am confident that comparable local surveys can be done today for considerably less, it would still cost between $100,000 and $300,000 per city to replicate the survey[13].

The major cost components are generated by the street surveys. Some savings can be achieved by some of the strategies described later. Nevertheless, sweeping a sufficiently large sample of streets will remain an expensive, labor intensive activity. In addition, there are several technical improvements than can be made that would either reduce costs or improve data quality, as I describe below.

Although the shelter sample appears to a straightforward operation, it turns out to be difficult to conduct interviews in many shelters after closing time. Some shelters stay open for admissions long after many residents are fast asleep. Other shelters could not provide accurate rosters of residents. In many shelters it turned out to be necessary to interview persons as they left the shelter in the morning. A great deal of confusion and error can be avoided by careful advance reconnaissance of a shelter to determine the best interviewing times and optimum respondent selection procedures tailored to the characteristics of the particular shelter.

In addition, we did not screen for homelessness in the shelters. However, we came across several instances in which residents had conventional dwellings to go to but preferred for a variety of reasons to sleep in a shelter. I would recommend strongly that shelter residents be screened.

Perhaps the major technical flaw was that we were not able to raise sufficiently the efficiency of our street sample through stratification. As can be seen in Table 2, the inter-strata differences in strata average numbers of homeless persons was not large. Indeed, in the Winter survey, as

[9]Rossi, Fisher and Willis *The Condition of the Homeless of Chicago*. 1986, Chicago, IL and Amherst, MA. Social and Demographic Research Institute and NORC: A Social Research Center.

[10]See Peter H. Rossi "No Good Applied Research Goes Unpunished," *Social Science and Modern Society*, Vol. 25, #1, pp. 73-80, 1987.

[11]Sosin and his colleagues' 1986 Chicago study was well received as was that of my colleague, James D Wright's study of the homeless clinic population. (See Sosin, Michael R.; Colson, Paul; & Grossman, Susan June 1988 "Homelessness in Chicago: Poverty and Pathology, Social Institutions and Social Change". Chicago The Chicago Community Trust, and James D. Wright and Eleanor Weber *Homelessness and Health*. New York. McGraw Hill, 1989.)

[12]This strategy was suggested to us by several reviewers of our CHS report as a way of defusing controversy ex ante and focusing attention on our substantive descriptive findings.

[13]The higher estimates are for the largest cities in which larger block and shelter samples will have to be taken to accommodate the greater area heterogeneity to be encountered in larger places such as New York or Los Angeles.

shown in Table 2, the average numbers of homeless persons found in the strata in both surveys do not confirm the ex ante size classification that created the strata. For example, in the Winter survey, the middle-sized stratum was smaller than that for the lowest-size stratum. Clearly, the police and our other "expert" informants could not identify with much precision those Chicago blocks that were night-time congregating spots for the homeless in that city. We have since learned that other researcher have had the same experience with other sources of information and that congregating places of the homeless are not fixed but vary greatly within short periods of time.

Accordingly, if a sample design modelled after the CHS is going to be used elsewhere, a lot more effort needs to be given to raising the precision of any ex ante size classification of blocks. In our study most of our effort went into getting all the blocks classified by police community relations officers. I now believe that we would have made a better investment to concentrate our efforts on locating major congregating places, using informants from among service providers and the homeless themselves. This suggests a strategy of forming only two strata of blocks: high density stratum composed of blocks that are known congregating places, and a residual stratum of all other blocks in the city. Correspondingly, the sample size for the residual stratum would be increased.

The block sweep procedures used in CHS were criticized because of the presence of off-duty policemen to provide safety to our interviewers. The belief is that they might have scared off homeless persons who thereby evaded our screening efforts. I find it hard to evaluate the weight of this critique mainly because our police escorts were not in uniform, although Chicago policemen do not tend toward the small and feeble looking end of the continuum of male body types. If homeless persons were put off by the sight of a woman (most interviewers were female) accompanied by a burly male, then I find it difficult to imagine a team we could put together that would provide protection to our interviewers and at the same time look benign. An alternative strategy, which we tried on a trial basis, was to shift the sweep time to the early evening (8 to 10PM). The results were inconclusive[14].

I believe we need more exploration of what the optimum times are for street sweeps. We avoided daytime sweeping because of what we believed would be an overwhelming screening task. It is hard to imagine that we could screen a Michigan Avenue block in the middle of the morning without the deployment of an army of interviewers assigned to each such block. Perhaps a set of decision rules could be worked out to employ an initial visual screen with a more detailed verbal screening undertaken only with persons who appear on the initial visual screen likely to be homeless. For example, a visual screen might be used to screen out all persons who appeared to be pursuing an occupation (such as delivery personnel, cab drivers, window cleaners), or carrying items clearly related to work (such as brief cases or portable computers).

However, I despair that such rules can be made simple enough to be workable on very crowded blocks. Perhaps more promising would be to try screening times either before or after normal working hours.

Given the successes of Martha Burt and Franklin James in using food kitchens as a source of access to the street homeless, it is tempting to suggest abandoning street sweeps in the middle of the night and to rely wholly on food kitchens (and other providers of services to the homeless). This strategy would be extremely attractive if we could realistically assume that all

[14]We tried this strategy on a small number of blocks sweeping them between 8 and 10 PM as well as on another day in the dead of the night. We could find no difference in the resulting sweeps, except for the increased screening in the earlier hours. I suspect that this trial did not have enough statistical power to detect any but the most dramatic differences.

street homeless persons had a non-zero probability of using service providers. Unfortunately, several recent research reports show that significant numbers of the street homeless do not use services and that the proportions of those not using services varies from city to city[15].

One possible accommodation is to consider mixed methods in which street sweeps, shelter samples, and service-provider samples are used in the same design. The street samples would provide estimates of the homeless who never use shelters or other services, while the shelter and service provider samples would be used to provide reasonable estimates of service users. Although such a mixed method approach is conceptually attractive, it undoubtedly would be very expensive. The street sample would have to be quite large to get a reasonable estimate of those who do not use services[16].

Perhaps the most serious flaw in the CHS was the very restricted definition of the homeless employed. It has become increasingly apparent to me that the homeless are best thought of as persons living in the most aggravated form of extreme poverty. The problem of the homeless ought to be reconceptualized as a problem of extreme poverty. This is a much larger pool of persons whose income is so slight that they cannot effectively enter the housing market as consumers. The extremely poor who manage to be housed in conventional dwelling units are able to do so mainly through the generosity of family and friends. These are the doubled up who have a high probability of become homeless if the generosity and sense of obligation of their housing benefactors deteriorates. To the extent that the extremely poor with housing also use services provided for the homeless, they should be included in samples of service users. But, of course, from such samples, we do not know anything of those who do not use services for homeless persons.

To expand studies of the homeless to include the extremely poor who are precariously housed constitutes a severe challenge to social researchers. This challenge is not technical so much as a question of how to expand studies efficiently. The precariously housed can be reached through conventional survey approaches. A household survey, properly conducted, should cover the precariously housed. However, the screening problem is a looming obstacle. Most households do not contain doubled-up families or extremely poor single persons living with a primary household. Accordingly, a survey of the precariously housed would be inefficient unless an appropriate ex ante stratification strategy could be designed to heighten the probability of doubled-up households appearing in a sample.

Of course, existing conventional surveys can be used to study the extremely poor who are precariously housed. The Current Population Survey (CPS), the Survey of Income and Program Participation, and similar surveys cover the precariously housed. Some have collected data of interest. Such surveys are not useful for local studies, and hence, of limited use until a good national survey of the homeless is undertaken.

If I were asked to design a definitive study of the problem of homelessness without budget and time constraints, I would certainly opt for a multi-method approach consisting of a street sample, a service-provider sample, and a household sample, all centered on the same locality. If I could summon enough hubris, I would design a national study, using the same sample frame as the CPS, with street sweeps and provider-based samples in PSUs in the sample frame. At a minimum, however, the study ought to be comparative, composed of sufficiently rich samples of each of a set of localities.

[15]An additional worry is that the use of the clients of food kitchens and other services depends heavily on learning from clients how often they use various services. The more steady such use patterns are, the more useful the project. The longer the period over which persons are asked to recall use patterns, the more unreliable and imprecise are the data.

[16]The mixed-method approach is attractive in other ways. Our street sweeps did not produce a large enough sample of homeless to be useful in descriptive analyses. We had to add street persons from supplemental interviews conducted in congregating places not drawn in our main sample.

Future Work

Perhaps my biggest disappointment in the subsequent course of survey research in the half decade since CHS was first released has been with the S-night efforts made in the 1990 Census. The resulting data can support neither size estimates nor the production of detailed demographic data on the homeless. It seems to be not enough to say that S-night was not designed to fit either of these purposes, as Census officials state. What is needed is some statement of what the S-night counts are good for. If they have no purpose, then I believe that we are entitled to know why S-night was conducted. I suspect that the Census felt impelled to do something but either lacked the resources to collect credible useful accounts and/or was apprehensive that any technically defensible effort would simply create unacceptable controversy. Whatever the reasons, it is clear to me that S-night was largely a wasted effort.

All that said, there is clearly much work that can be undertaken. I believe we do know how to conduct a proper study of homeless persons and the precariously housed. My fondest hopes are that some federal agency or wealthy private foundation will authorize and fund some form of multi-method national sample survey as described in the previous section of this paper.

Sample Design and Implementation: Chicago Homeless Study

Extracted from Appendix B
Peter H. Rossi *Down and Out in America*
University of Chicago Press, 1989

Table 1. Chicago Homeless Study: Shelter and Street Sample Designs September 1985 (Fall) and February 1986 (Winter)

A. *Shelter Sample Design:*

	Fall 1985	Winter 1986
Eligible shelters in universe	28	45
Universe bed capacities	1573	2001
Shelters drawn in sample	22	27

Shelters were selected randomly within three size strata.

Residents within shelters were sampled disproportionately to form a self-weighting sample of shelter residents.

B. *Street Survey Sample Design*

Census Block Classification and Sample Sizes

Prior Density Classification[1]	Universe Number of Blocks	Fall Sample Size	Winter Sample Size
High Density	295	49	49
Medium Density	806	49	49
Low Density[2]	18308	70	147
TOTAL	19409	168	245

[1]Prior classification accomplished with the help of community relations officers of the Chicago Police Department and modified with the help of other; knowledgeable persons.
[2]Low density blocks were sampled in clusters of five blocks in Fall Survey I and of three blocks in Winter Survey.

Table 2. Computation of Street Homeless Population Estimates

A. *Fall Estimates*

Stratum	Mean per-Block/ Cluster	SE	Multi-plier	Number of Blocks/ Clusters	Population Estimate	Standard Error
High	0.102	0.060	1.398	295	42	25
Medium	0.306	0.098	1.365	806	337	108
Low	0.214	0.155	1.280	3662	1004	726
TOTAL					1383	735

B. *Winter Estimates*

High	0.571	0.400	1.195	295	202	141
Medium	0.00	0.00	1.158	806	-	0
Low	0.041	0.029	1.280	6103	326	229
TOTAL					528	269

Table 3. Survey Implementation Experience

	Fall	Winter
A. Shelter Universe		
1. Eligible shelters in universe	28	45
2. Shelters drawn in sample	22	27
3. Sampled shelters agreeing to participate	21	23
Shelter completion rate	(95.5%)	(85.2%)
B. Shelter Resident Sample		
1. Eligible residents in sampled shelters	934	1183
2. Eligible residents selected in sample	320	317
3. Sampled residents interviewed	265	248
Completion rate	(82.8%)	(78.2%)
C. Street Survey		
1. Persons encountered[1] and approached for screening	318	289
2. Persons encountered and screened	232	238
Screen completion rate	(73%)	(82%)
3. Persons who refused screening interview	80	37
Screen refusal rate	(25%)	(13%)
4. Screen interview breakoff	4	5
5. Persons encountered unable to be screened	2	9
6. Persons screened and eligible for main interview	23	30
7. Completed main interview	22	28
Completion rate	(96%)	(93%)

[1]An "encounter" consists of any person found present on a block in any public access place who was walking, sitting, standing, lying down, sitting in a parked car or truck, or riding a bicycle.

Estimation of the Number of Homeless and Homeless Mentally Ill Persons in Three California Counties

M. Audrey Burnam
The RAND Corporation

In 1987, RAND conducted a study which included an enumeration of homeless persons in three California counties. The impetus for this study was California's Mental Health Services Act of 1985, which we refer to as The Homeless Mentally Disabled (HMD) Program. This program allocated $20 million annually to the state's 58 counties to support a wide range of services for homeless persons with mental disabilities. This legislation gave counties flexibility to tailor their programs according to their needs, and authorized a comprehensive range of services which could be provided, including food, clothing, shelter, outreach, and case management. In 1986, the State Legislature mandated an independent performance review of the programs run by the counties, and in 1987 RAND was contracted to conduct that review.

The objectives of this RAND study were to: 1) estimate the number and location of homeless persons; describe their demographic characteristics and their health, housing, and subsistence needs; and estimate the number of homeless with specific types of disabling mental illnesses; 2) identify and categorize the services provided to homeless mentally disabled persons with State program funds; 3) identify the characteristics of persons served by the program and types of services received by them; 4) analyze selected measures of performance emphasizing: provision of subsistence services; coordination of multi-service delivery; ability to engage clients; continuity of care; placement of clients in permanent residences, job training, and other rehabilitative programs; and assistance in obtaining institutional support such as general or veterans' assistance and medical treatment; 5) discuss the findings as they relate to adequacy of funding, allocation of funds, appropriateness of service mix and subpopulation targeting, and service delivery improvements and effectiveness.

To accomplish these aims, we conducted three types of data collection activities. A survey of homeless persons in three counties was conducted to provide estimates of the number of homeless persons in these counties and to profile their demographics, location, presence of severe mental disorders, and program needs. Programmatic case studies were conducted in the same three counties to provide a detailed picture of how the HMD program was implemented in these areas. And finally, telephone interviews were conducted with county Mental Health Directors, Homeless Coordinators and key service providers in 17 counties to identify the range and characteristics of services funded and to elicit their views about the effects of the county programs.

This paper will focus on the study's estimates of the number of homeless and homeless mentally disabled persons in three California counties. A more detailed description of the complete study can be found elsewhere (Vernez et al., 1988).

DESCRIPTION OF COUNTIES

The three counties that were selected for the surveys of homeless persons and the programmatic case studies were Alameda, Orange, and Yolo Counties. The counties were selected because they were diverse in their general population characteristics and in the types of programs they had implemented using the HMD program funds.

Alameda County has a population of 1.3 million, which resides largely in urban areas (Oakland, Freemont, Berkeley and surrounding communities). About 18 percent of the county's population is Black, and about 12 percent is Hispanic. Alameda was the least affluent of the three counties we studied. In 1986, the median family income was $18,700, with 8.7 percent below the poverty line, and 6.6 percent unemployed.

Orange County has a population of 2.3 million and is also predominantly urban, containing the cities of Anaheim, Santa Ana, and Orange. Only 1 percent of the population is Black, and 15 percent is Hispanic. It is one of the most affluent counties in the State, with a median family income of $25,918 in 1986, 5 percent of families below the poverty line, and an unemployment rate of only 4 percent.

Yolo County, with a population of 137 thousand, is rural. Most of the population lives in three small communities (Davis, Woodland, and West Sacramento), which are separated by large areas of farmland. Hispanics are 17 percent of the population, and Blacks 2 percent. The median family income of $20,495 in 1986 was close to the State average. At that time, 9 percent of families were below the poverty line and the unemployment rate was relatively high, at 7.3 percent.

ENUMERATION AND SURVEY METHODS

Using an approach similar to that described by Rossi and colleagues (1987), our study of homelessness in these three counties was designed to obtain counts of the numbers of homeless persons sleeping in emergency shelters and in the streets on a given night, and to interview a probability sample of those counted that would represent the homeless adult populations of each county.

The census and survey of a given community occurred in a single night. For the shelters, enumeration and surveys were conducted in the evening hours after shelters closed. For the streets, this fieldwork was conducted in the late night and early morning hours (generally between 11pm and 4am). This single-night approach was taken to minimize census errors arising from the mobility of the population. The fieldwork took place during September and October of 1987, with 2-5 nights of data collection in each county.

Definition of Homelessness. In shelters, all persons with the exception of program staff were defined as homeless. For those found in the street population, homelessness was defined as not being able to stay in traditional housing (e.g., hotel room, apartment, house) for at least one night in the 30 nights before the survey. When interviewers enumerated a person in the street population, they were instructed to judge whether the person was clearly homeless (for example, carrying their belongings or staying in a place that had been fashioned into a sleeping area). Persons who were not clearly homeless were asked a series of questions to determine whether they met the study definition of homeless.

Shelter Population Enumeration and Survey. All emergency shelters serving homeless persons (adults and children) in each of the counties were identified, and their program directors were contacted to obtain estimates of a typical night's census. (Shelters exclusively designated for battered women and children were not included, but voucher hotel rooms were included.) Shelters were then sampled with probability proportional to the number of adults staying in the shelter on a typical night. Study staff visited each shelter on a specific evening and counted adults and children in the shelter on that night. In smaller shelters, all adults 18 years of age or older were invited to participate in the survey. In larger shelters, a sample of adults were invited to participate, with the proportion sampled ranging from one-third to three-fourths.

Table 1 shows, for each of the three counties, the total number of homeless persons counted in all of the shelters on a given night, the total number of shelters in the county, the number of shelters selected for the survey, the number of adults who completed survey interviews in sampled shelters, and the survey response rate (e.g., the proportion of selected respondents who completed a survey interview). To summarize, we obtained complete counts of homeless persons in emergency shelters in the three counties (305 in Alameda, 423 in Orange, and 6 in Yolo), and interviewed a probability sample of homeless adults in these shelters (70 in Alameda, 45 in Orange, and 5 in Yolo).

Table 1

Enumeration and Survey Sample Details for Shelter Population

	ALAMEDA	ORANGE	YOLO
Total homeless persons	305	423	6
Total shelters	13	16	2
N shelters sampled	5	6	2
N adults surveyed	70	45	5
Survey response rate	94	90	83

Street Population Enumeration and Survey. The street population included homeless persons who stayed overnight in outside areas (such as back alleys, parks, campgrounds, beaches, riverbeds, churchyards, parked cars, and freeway underpasses) as well as indoor public areas (such as bus and train depots, abandoned buildings, and all-night coffee shops).

A stratified multi-stage sampling design was employed to enumerate and survey homeless persons in the street population. At the first stage, census tracts were sampled, and at the second stage, census blocks were sampled. All selected census blocks were thoroughly searched, and counts were made of persons who were determined to be homeless as well as of persons whose homeless status could not be determined. Among persons in the street enumeration who were determined to be homeless and at least 18 years old, as many as possible were randomly selected to participate in the survey.

The census blocks and tracts in each county were stratified on the basis of estimates of the number of homeless persons who would typically be found overnight in each block and tract. The estimates were obtained from local experts (generally police officers who patrolled the areas at night and local homeless service providers). Tracts and blocks believed to contain no homeless individuals ("zero" estimate tracts and blocks) were not sampled. Tracts and blocks believed to contain large numbers of homeless persons had a higher probability of being sampled than those believed to contain few homeless.

In Orange County, there were five census tracts with high homeless street population estimates (over 20 persons), all of which were selected. There were 14 medium estimate tracts (4 to 15 persons), four of which were selected; and there were 31 low-estimate tracts (1 to 3 persons), three of which were selected. Within selected tracts, all seven high estimate blocks (4 or more persons) were selected, and 38 of 65 low estimate blocks (1 to 3 persons) were selected.

In Alameda County, there were 41 census tracts thought to contain at least one person in the homeless street population, and all of these were selected. In addition, there were 116 census tracts in which experts thought a homeless person might "possibly" be found although it was unlikely; 13 of these tracts were selected. Within selected tracts, all 272 blocks thought to contain (or possibly contain) any homeless persons were selected.

In Yolo County, all 9 census tracts which were thought to have a homeless street population were selected, and within each of these tracts, all 31 blocks thought to contain homeless persons were selected.

In summary, for Alameda and Orange Counties, we designed a highly efficient sample of blocks, and in Yolo County, we sampled all nonzero blocks. Table 2 shows, for each county, the total number of nonzero tracts in each county (that is, the number of tracts thought to have a homeless street population of one or more), the number of tracts that were sampled, the total number of nonzero blocks in each of the selected tracts, the total number of blocks that were

sampled and searched, the number of homeless persons found in each of the sampled blocks, the number of homeless persons estimated across all of the sampled and nonsampled blocks, the number of homeless persons who completed survey interviews, and the survey response rates.

As shown in Table 2, we counted 330 to 376 homeless persons in the streets in Alameda County, 186 to 209 in Orange County, and 54 to 73 in Yolo County. The lower number in this range is the number of persons who were determined to be homeless and the higher number includes persons who were seen and counted but whose homeless status could not be determined. When these counts were weighted to all of the blocks and tracts in the counties, we estimated a range of 497 to 548 persons in the homeless street population in Alameda County, 316 to 375 in Orange County, and 54 to 73 in Yolo County. The number of homeless adults with whom we completed surveys in the street sample was 188 in Alameda County, 89 in Orange County, and 38 in Yolo County.

Table 2

Enumeration and Survey Sample Details for Street Population

	ALAMEDA	ORANGE	YOLO
Total nonzero tracts	167	50	9
N tracts sampled	54	12	9
Total nonzero blocks in tracts	272	72	31
N blocks sampled/searched	272	45	31
N homeless persons found	330-376	186-209	54-73
N homeless persons estimated	497-548	316-375	54-73
N adults surveyed	188	89	38
Survey response rate	86	72	77

POINT AND ANNUAL PREVALENCE ESTIMATION

To estimate the numbers of homeless persons in each county on a given night (point prevalence estimates), we summed total counts in the shelter population with the midpoint of the range of estimated counts in the street population. One limitation of the study was that it did not directly count homeless persons who were, on the night of the survey, temporarily housed. To minimize the impact of this limitation, the estimates of the number of homeless persons in each county were upwardly adjusted by a survey-derived estimate of the proportion of homeless persons who were likely to have been temporarily housed (for example, in jail, a hotel room or staying with a friend) on any given night.

The resulting estimated rate of homeless persons on a given night per 10,000 persons in the total county population is shown in Table 3. This estimated rate is 7.6 in Alameda County, 4.2 in Orange County, and 6.2 in Yolo County.

The numbers of persons who were homeless at any time over a period of a year, or annual prevalence of homelessness, was also estimated using survey information on the history of homelessness in the past year. The annual estimate was the sum of an estimate of the number of persons who were continuously homeless over the past year and the number who became homeless during the past year. The number who were continuously homeless over a year was estimated by calculating the proportion of surveyed respondents who reported having been continuously homeless in the past year, and multiplying this by the point estimates of the homeless population sizes in each county. The number who became homeless in the past year was estimated by taking the proportion of surveyed respondents who reported they had

become homeless in the past month, multiplying this by the point estimates of the homeless population sizes, and then multiplying by 12. This approach to estimating annual prevalence of homelessness assumes a stable population size, that is, that the remission rate from homelessness equals the incidence rate.

Using this approach, the estimated rate of persons who are homeless at any time during the year per 10,000 total county population is shown in Table 3. This rate is 22.3 in Alameda County, 19.8 in Orange County, and 12.8 in Yolo County.

Table 3

Number of Homeless Over Year
Much Greater Than on a Night

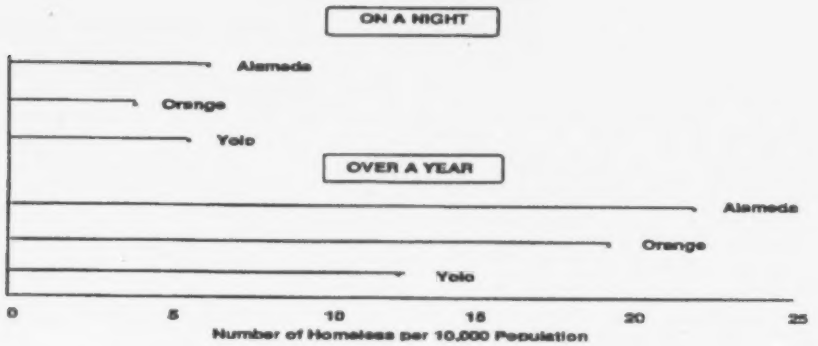
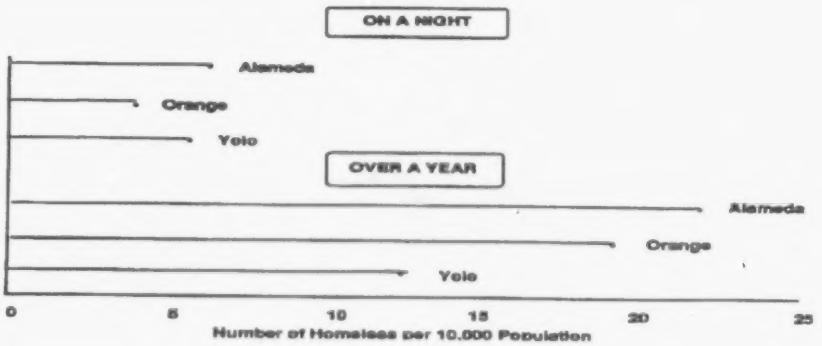


Table 4 shows that, of the total annual prevalence of homelessness, about 90 percent represents entry to homelessness at some time during the year rather than continuous homelessness. These entries to homelessness include both new episodes of homelessness as well as repeat episodes. The high proportion of entries into homelessness over a year highlights the dynamic nature of homelessness and the permeability of the barrier between the domiciled and the homeless. The large number of persons having some period of homelessness over time may also partially explain relatively high estimates of homeless population sizes by local service providers, whose frame of reference is likely to be longer than one night.

Table 4

Homeless Population Over Year
Continually Changing



BEST COPY AVAILABLE

PREVALENCE OF SERIOUS MENTAL ILLNESS AMONG THE HOMELESS

As part of the survey of homeless persons in the three counties, we collected information to estimate the prevalence of serious mental illness in these populations. By serious mental illness, we refer to mental disorder which causes psychotic symptoms and is likely to be either chronic, or recurrent, or cause long standing residual symptoms. Operationally, we used a structured survey instrument to screen for major affective disorder (recurrent major depression or bipolar disorder) and schizophrenia, using DSM-III criteria (American Psychiatric Association, 1980).

To develop the screener, we drew items from the Diagnostic Interview Schedule (DIS), a highly structured diagnostic interview designed to be administered by lay interviewers (Robins et al., 1981). We selected items that were likely to be predictive of the target diagnoses, and constructed short-cut diagnostic algorithms using the key items. We tested the screener by comparing the diagnosis resulting from the screener algorithm with that resulting from the full DIS, using available survey data from a sample of 328 homeless adults residing in the Los Angeles downtown Skid Row area. This sample, described in further detail by Koegel and colleagues (Koegel et al., 1988; Burnam & Koegel, 1988) had completed the full DIS as part of a prior study. Several alternative screening item combinations were examined using these data. We selected the alternative which resulted in less than 15 percent false negative classifications and minimized the false positive error rate. The resulting screener included 18 questions which screened for the lifetime diagnoses of major affective disorder and schizophrenia.

Table 5 shows the sensitivity, specificity, and positive predictive value of the screener when lifetime diagnoses using the full DIS are considered the "correct" diagnoses. The sensitivity (proportion of true positive cases correctly classified by the screener) and specificity (proportion of true negative cases correctly classified by the screener) are both high. However, even this level resulted in specificity less than ideal positive predictive values (the proportion of cases classified positive by the screener that are truly positive). Because of the high rates of false positives we anticipated when using the diagnostic screener in our survey of homeless persons in the RAND study, we adjusted our estimates of the prevalence of serious mental illness in this study, assuming that the screener continued to operate with the sensitivities and specificities shown in this table.

Table 5

Ability of Screener to Detect DSM-III Diagnoses

Diagnoses	Sensitivity	Specifity	Positive Predictive Value
Schizophrenia	98	92	66
Major Affective	88	70	42

Table 6 shows the estimated prevalence of serious mental disorder among the homeless populations in each of the three counties. About one-third of the homeless in these counties are estimated to suffer from either major affective disorder or schizophrenia. We find major affective disorder to be about three times more common among these homeless populations than in general populations (where rates of 5 to 10 percent are commonly found) while rates of schizophrenia are even more disproportionately high among the homeless. Here we find schizophrenia among 7 to 16 percent of the homeless, while it is relatively rare (0.5 to 1 percent) in general populations.

Table 6

At Least One in Four Homeless Have A Serious Mental Disorder

Percent with disorder	ALAMEDA	ORANGE	YOLO
Major Affective Disorder	24	19	31
Schizophrenia	16	7	11
Serious Mental Disorder	33	26	40

DISCUSSION

One difference between this study and the enumeration of homeless persons in Chicago by Rossi and colleagues is the much larger geographical area covered in our study. This, along with budget constraints, necessitated a highly efficient sampling approach to estimating the size of the homeless street population. Unlike the Chicago study, areas in this study which were thought to contain no homeless persons (the "zero" estimate tracts and blocks) had no probability of being sampled and searched.

The major limitation of this approach is that an unknown number of homeless persons may actually have been staying in these "zero" estimate tracts and blocks, unnoticed by our experts, and thus our estimates of the homeless population size in these counties may be underestimated. To check on the extent to which this underestimation may have biased our results, we searched 17 blocks in 7 zero estimate tracts in Alameda County. Our field staff found one homeless person in one of these blocks, and another person on a second block whose homeless status could not be determined. If this pattern is typical for other zero estimate blocks in Alameda County, omission of them from our sampling frame resulted in a 13 to 22 percent underestimate of the total homeless population size. Although, under ideal circumstances, we would want to heavily sample zero estimate blocks to arrive at a more precise estimate of the homeless population size, the cost of the study was greatly reduced by omitting them. (The fieldwork in all three of the counties was conducted for a cost of about $48,000 in 1987.)

Another cost-saving efficiency that we introduced in this study was the use of a brief diagnostic screener for the purposes of estimating the number of seriously mentally ill homeless persons. This screener took less than 10 minutes to administer in an interview format, and, because its sensitivity and specificity was calibrated against a comprehensive diagnostic interview, the number of persons meeting full criteria for DSM-III major affective disorder and schizophrenia could be estimated. The entire 20-minute survey conducted in this study, in addition to screening for serious mental illness, collected information on a variety of demographic characteristics, current circumstances, and patterns of entitlement and service use.

Although the approach to estimating the size of the homeless population in this study has its limitations, we believe this type of approach can provide an objective and standardized yardstick against which to gauge the relative size and characteristics of homeless populations across service areas, at fairly low cost.

References

Vernez G, Burnam MA, McGlynn EA, Trude S, Mittman BS, "Review of California's Program for the Homeless Mentally Disabled," R-3631CDMH, The RAND Corporation, Santa Monica, CA, 1988.

Rossi PH, Wright JD, Fisher GA, Willis G, "The Urban Homeless: Estimating Composition and Size," *Science*, 235:1336-1341, 1987.

American Psychiatric Association, *Diagnostic and Statistical Manual of Mental Disorders*, 3d ed. (DSM-III), Washington, DC: American Psychiatric Association, 1980.

Robins LN, Helzer JE, Croughan J, Ratcliff KS, "The NIMH Diagnostic Interview Schedule: Its History, Characteristics, and Validity," *Archives of General Psychiatry*, 38:381-389, 1981.

Koegel P, Burnam MA, Farr RK, "The Prevalence of Specific Psychiatric Disorders Among Homeless Individuals in the Inner City of Los Angeles," *Archives of General Psychiatry*, 45:1085-1092, 1988.

Burnam MA, Koegel P, "Methodology for Obtaining a Representative Sample of Homeless Persons: The Los Angeles Skid Row Study," *Evaluation Review*, 12(2):117-152, 1988.

Techniques for Estimating the Size of the Homeless Population in Colorado

Franklin J. James
Professor of Public Policy
Graduate School of the Public Affairs
University of Colorado at Denver

I would like to start my comments on the Colorado research by emphasizing the limited usefulness I see for this kind of data. I think this was the kind of subject we perhaps should have discussed a little more fully this morning.

Estimates of the homeless population and the composition of the homeless population at a point in time don't offer very many useful clues for policy about homelessness. They are mostly useful for estimating the needs for various kinds of emergency services, shelter, food, some kinds of medical care and so forth. They are not particularly useful for estimating the need for a variety of curative services. At a minimum, the need for curative services depends on the number of separate cases of homelessness that occur over some period of time. It is very difficult to estimate the number of people that are likely to be homeless over some period of time from cross-section survey data.

In a broader sense, the need for curative policies depends on the size of the at-risk population, that is, people who are not homeless at a point in time but who are at high risk of homelessness. In our own research in Colorado, we have tried to estimate the likely size of the at-risk population. We estimate that in Colorado it is at least 15 times larger than the number of homeless at any one point in time.[1] Its composition is different than the people who are homeless at a point in time, but we do not know exactly how different the characteristics are. A complex array of factors shape a person's risk of homelessness. The people who are at risk are a small minority of the impoverished. We estimate in Colorado that the poverty population is at least 10 times larger than the population that is at risk of homelessness.

So, cross-sectional surveys have a very limited usefulness for policy formulation. It is my hope that such surveys are only the first generation of research on homelessness, and that we will move into something more fruitful as time goes by. I'm excited by the longitudinal research being done by Audrey Burnam and Irving Piliavin. Such research can offer rich insight into the paths leading in and out of homelessness. However, I'm very concerned about its likely success given the fluidity and difficulty of following homeless people.

There is another, so far unused, data resource I'd like to point out that I'm quite optimistic about. The Department of Housing and Urban Development and the Census Bureau are beginning to investigate the possibility of adding questions about homelessness into the American Housing Survey. That is a survey of about 40,000 households nationwide, perhaps 100,000 people. If, in a survey of that size, we can ask people's past experiences with homelessness — perhaps during the past year — we could begin to get a handle on the size and characteristics of the at-risk population. And, by bootlegging questions about homelessness in other large-scale data collection efforts like the Current Population Survey or the Survey of Income and Program Participation, maybe we will be able to get even better information as time goes by.

Why did we do our survey research on homelessness in Colorado? The origin of our efforts lie with the Colorado Coalition for the Homeless, the Denver Department of Social Services, and the University of Colorado at Denver, where I'm a professor in the Graduate School of Public Affairs. Until our research, there was no information in the state on the scale of homelessness, even at a point in time, or on the nature of the homelessness problem in the state. The Coalition, the Department of Social Services and others were at loggerheads, debating the size, and characteristics of the homeless. The Department of Social Services was arguing that the homeless problem was exaggerated; the Coalition for the Homeless was arguing that the size of the population was underestimated.

[1]For purposes of this analysis, the "high-risk" population is defined as the persons with at least 10-percent probability of homelessness in a given year.

The three of us decided that if we agreed beforehand on a particular method and definition for estimating this population, and if we agreed to comply with the results when they came in, that planning and policy analysis in the state would be moved forward, and that is exactly what we did. The three of us agreed to a method. I personally designed the method. It was implemented in cooperation with these other agencies and when the results came in, everybody supported the results.

The Colorado research has been useful in policy analysis in the state on a preliminary level. The research focused attention on a problem of a particular size, of a particular nature, with a particular locational pattern within the state. It served as the basis of all the major policy analysis efforts that have focused on homelessness in the state since we did the first survey in 1988. We redid the survey using generally the same method in 1990, so we are beginning to have longitudinal data, and we are beginning to think of our research agenda for the future.

Now, let me tell you what information the method generates, and then I'll tell you how it works. We believe that our methods in Colorado, which, of course, are built on earlier research efforts elsewhere in the nation, give a good picture, both in terms of scale and composition, of the shelter population in Colorado. We believe that we get a comprehensive but somewhat less reliable estimate of the scale of the street population. By street population, I mean persons sleeping under bridges, in abandoned buildings, in cars and so forth. We only get a portion of the remainder of the homeless population. Those are persons in hotels or other temporary lodging, or who are coming out of detox centers, hospitals, jails and so forth. The only portion of that population we get are persons who are using soup lines or food lines.

Let me be clear about the definition of homelessness that's been used. We've used the same two definitions in both years so that we can estimate trends in the scale of the problem. Each definition focuses on homelessness among the groups I've mentioned: persons on the street, persons using soup lines, persons in shelters. Among these groups, the first definition defines as "the homeless" the persons who say they don't have a permanent place to live of their own. In principle, this definition includes some precariously housed persons, as well as the literally homeless. That gives a larger definition of the population. The second definition is more restrictive. The second definition counts people as homeless only if they report they did not have a permanent place to live of any kind.

To make the definitions somewhat clearer, a person in a shelter who reported he or she had a permanent place to live, would not be counted as homeless. We've found there are a number of groups who were not homeless who are in the shelters in Colorado. In some parts of the state, for example, a few people use the shelter system as a form of hostel system, for example. Other people are in shelters for a brief period of time and believe they have a permanent place to go if they choose. We have decided not to count those persons as homeless.

How did the methods work? As with the other studies we have discussed here today, we do a probability sample of persons in the shelter system throughout the state. We do a probability sample statewide of persons using soup lines or food lines. We believe the results of these two surveys are highly reliable.

In the Denver Metropolitan area, which has the only major concentration of homeless persons on the streets that are known, we do a sample of persons in places known to be sleeping places of homeless people. We don't make an effort to survey persons on the streets outside of these known sleeping places. By known places, I mean places known to the search and rescue staff of the Salvation Army, staff of the Coalition for the Homeless, and other knowledgeable people.

Our estimate of the street population is made in two steps. First we estimate numbers of persons sleeping on the streets who are also using soup lines. This is based on our probability samples of soup line users. Second, we expand that into an estimate of the overall street population on the basis of patterns of use of soup lines among the street people we interview. In some ways, it's quite similar to what Burt and Cohen have done on the national level. The specific factor we use to expand numbers of street people using soup lines to the overall street population is the inverse of the proportion of street people using soup lines.

Now, the results. We estimate a homeless population that is about one per 1,000 residents of the State of Colorado. That's a somewhat higher rate than has been found in California. It's a considerably lower rate than has been found in the national studies. I think, the comparatively low rate of homelessness in Colorado reflects the soft housing market conditions in the state.

We estimate a street population that's between one-third and one-sixth of the total homeless population in the Denver metropolitan area. We estimate that the size of the homeless population has declined marginally between 1988 and 1990 in the state as a whole. Whether the decline is statistically significant or not, we don't know. Our preliminary estimates suggest a decline of about five to six percent. So, like in Nashville, we're not finding homelessness to be a growing problem.

Let me talk about the main weaknesses I see in the method. The weaknesses I'm going to talk about are common to a number of other studies. The first is we don't have a good handle at all on numbers of homeless youth on the their own. Homelessness among youth is a very difficult status to define because access to money from drugs and prostitution (as well as money from parents) fundamentally changes the nature of homelessness among this population. Moreover, it's a population that doesn't use the standard homeless services, the shelters, the soup lines and so forth. This makes homeless youth a very difficult group to track down. We're trying to design a survey now of youth using services for youth, so we will be able to get a better idea of the numbers of homeless youth, but that effort is just beginning.

We also do not think our methods work very well in rural areas. Homeless persons in rural areas are frequently precariously housed with friends or family, and thus invisible to public agencies. Our methods are most effective in counting homeless people using services. Many other research methods do the same. In many of the rural places in Colorado there are no services for the poor or the homeless. We are trying to improve this aspect of the method. In 1988 and in 1990, we did surveys of sheriff offices, ministerial alliances, and social service departments in counties across the state, and asked for information on numbers of homeless people with whom they were dealing. The numbers are quite small, and we're investigating them now for incorporation in both our 1988 and 1990 methods to preserve comparability. It is my judgment it will affect the estimated level of homelessness outside the Denver metropolitan area by a factor of perhaps five to ten percent, no more.

I'll conclude by saying that some groups of the rural homeless in Colorado are a difficult and fearsome group to interview. A reporter called me the other day from the Wall Street Journal, and said, "Franklin, we're doing a story on rural homelessness. Have you got any rural homeless in Colorado?" And, so I gave him a few leads. I told him that in the western part of the state, it is reported by social service departments that about 50 to 100 homeless people live in caves and campers and tents. He said, "Great, I'm going to call out there. I might fly out there and interview them tomorrow." After he hung up, and I threw away his telephone number, I remembered I forgot to warn him that all of these homeless people are by reputation chronically mentally ill and very well armed. He's going out to interview homeless persons armed with hunting rifles and 357 Magnums. Good luck to him. So, anyway, thank you very much.

The RTI Method: Sampling Over Time

Michael L. Dennis, Ph.D.
Ronaldo Iachan, Ph.D.
Jutta S. Thornberry
Robert M. Bray, Ph.D.

Research Triangle Institute

Cynthia Taeuber has asked me to tell you about a study that is just getting under way, how we have incorporated some of the lessons from the prior studies, and to focus on how we have dealt with time-related problems in our sampling and data collection strategies. Before doing this I must make two short digressions. The first is to acknowledge the assistance and good will we have received from our methodological advisors, including Kathleen Dockett, Norwetta Milburn, Peter Rossi, Matt Salo, and Cynthia Taeuber; our project officer, Elizabeth Lambert, and other policy makers in both Federal and local government, including Peter Charuhas, Betty Ford, Carol Giannini, Peter Gray, Robert Huebner, Ray Spicer, Ernest Taylor, and Fay Van Hook; and the members of our local advisory group and individual practitioners, including John Adams, Pat Allen, Gerry Anderson, Thaddeus Aubrey, Ken Barter, John Barrett, Mike Farrell, Russell Gaskins, Margaret Glenn, Tim Harmon, Sister Elena Henderson, Barbara Hobbie, Robert Keisling, Phyllis Manners, Anne Moss, P.J. Regan, Jane Roth, Michael Stoil, Barbara Uhler, Joan Volpe, Willard Webster, Jack White, and Joseph Wright. The second is to note that I am speaking today for an entire team of people conducting this study and would like to acknowledge assistance in preparing this presentation from our team, including Ronaldo Iachan, Jutta Thornberry, and Robert Bray.

In reference to the presentation, let me say that we have learned a lot from what has already been done. Unlike many earlier studies, our focus is less on estimating the number of homeless people than on estimating the incidence and prevalences of substance abuse and other disabilities among homeless people and on their need and access to treatment. I think that it is important to keep in mind the purpose of this and other studies when comparing them. With the exception of S-Night, I suspect that most of them have been conducted for some reason other than estimating the number of homeless people per se. This may be part of the reason why many of the resulting estimates have been disputed.

What Is DC*MADS?

Before talking about our approach to time-related problems, let me first tell you a little bit about the larger effort we are involved in and the basic design of our homeless and transient population study. This is one of 17 studies being conducted under something called the DC Metropolitan Area Drug Study (DC*MADS). These studies represent a comprehensive research effort to study drug abuse among all types of people in one metropolitan area at the same time using a common set of instrumentation, a common timeframe, and sampling frames that do their best to either minimize and/or measure any overlap. The main objectives are to:

- assess the extent of drug abuse among the varied populations that are at risk,
- assess the negative effects of drug abuse in the area as a whole, and
- develop an effective model for collecting information on drug abuse that other major metropolitan areas can use.

The study is designed to examine the extent to which the National Household Survey on Drug Abuse (NHSDA) underrepresents several subpopulations who are more likely to be adversely affected by substance abuse. These populations include school dropouts, adult and juvenile criminal offenders, institutionalized people,, drug abuse treatment clients, pregnant drug abusers, and, most notably, the homeless population.

In answering the question posed earlier today, this study costs approximately $6.3 million, of which about $800,000 is related to the homeless component. DC*MADS is being conducted over a 3-year period, during which the homeless component will be in the field for 4 months. The study's purpose can explain why we have relatively more resources and time.

The National Institute on Drug Abuse (NIDA) wants us to be able to estimate the substance abuse prevalences as low as 1% with a relative standard error of 50% or less. They also want us to look at the comorbidity of other disabilities such as mental illness and health care problems and to make sure that the results are representative of the entire homeless population. This means that we have had to use a probability-based street sample and a 50- to 60-minute interview. Our substance abuse section alone is longer than most interviews I have seen in other studies.

What Is the Homeless and Transient Population Study Design?

In terms of what Martha Burt was calling the basics, the homeless study component is sponsored by NIDA and includes anyone in emergency shelters, on the street, or who lacks access to regular and secured housing. It includes a screener in the street sample and information on lifetime and annual prevalence of homelessness among people in other types of housing. The study will be based on a random sample of 64 nights between February and May of 1991. Both shelter and street locations will be sampled from the 16 municipalities that make up the DC statistical metropolitan areas as defined by the U.S. Census. Sample respondents will be asked to participate in a 50- to 60-minute interview about problems with substance abuse, criminal activity, primary care, mental health, employment, and housing. In each of those areas, they will be asked about their symptoms, access to treatment and where any treatment was received. Most of this same information will be collected in the other DC*MADS population studies, including a housing status section to look at lifetime and 12-month overlaps between each group.

One of the complications we have faced in looking at a statistical metropolitan area is that each of the 16 municipalities is very unique in how the service system is set up. Furthermore, the movement and characteristics of the homeless population appear to vary by municipality and whether it is a rural, suburban, or urban area.

The sampling design includes three basic frames: the temporal, shelter, and street frames. The temporal frame will be used to randomly select 64 days over a 4-month period. It is stratified by both week and season. Four days are to be randomly selected per week. The weeks are balanced to produce eight in the winter (i.e., February and March) and eight in the spring (i.e., April and May).

The shelter frame will be used to randomly sample 480 residents from 96 shelters. The shelter frame is stratified by shelter size and season with four to six residents systematically sampled per shelter. Sixty-four randomly sampled shelters are randomly assigned to 32 winter days at a rate of 2 per day, and then another 32 randomly sampled shelters are randomly assigned to 32 spring days at a rate of 1 per day. We have decided to sample more shelters in the winter because more people are reported to be in the shelters during the winter.

The street frame will be used to randomly sample 269 screened homeless people from 576 Census blocks clustered in 64 Census tracts. The street frame is stratified by expected density of homeless people at both the block and tract level and by season. There are 288 randomly sampled Census blocks for each season clustered by geography and randomly assigned to one of the 32 sampled days within the season at a rate of 9 per day. Although a screener is used, everyone who is encountered is to be at least enumerated on an observation form. People who are currently engaged in illegal activities (e.g., breaking and entering, a crack den) or employed in the provision of services (e.g., janitors, paperboys, taxi drivers, police officers) are to be only enumerated. Everyone else will be asked to participate in a 1- to 2-minute screening interview and a 50- to 60-minute interview if they lack regular housing or an agreement to stay in regular housing. We are also keeping track of the location of people so that we can look at the impact of more restrictive locations such as those the Census used on the characteristics related to alcohol, drug abuse, and mental health (ADM) disorders.

Our sampling design is summarized in Exhibit 1. Note that we are addressing some of the problems with street samples that were identified earlier by Peter Rossi by improving our stratification, increasing the number of blocks sampled, and allocating most of the block sample

to the highest density blocks. We have tried to improve our stratification by concentrating on the highest density blocks, using two stages so that we could collect more detailed information on the block level, and using two different types of people. In the first stage, we asked the main person in charge of providing services to homeless people in each of the 16 municipalities to rate their Census tracts using the following scheme:

Rating	*Definition*
High	One or more homeless people can be found somewhere in the tract 6 or more nights per week
Medium	One or more homeless people can be found somewhere in the tract 1 to 5 nights per week
Low	Remaining tracts

Survey Components of the Homeless and Transient Study

Next we asked each municipal expert to identify a local expert familiar with each of the sampled tracts. These local people included outreach workers, shelter providers, and health care workers for the homeless staff. Although they may lack the big picture for the municipality, it is our hope that such local experts are more likely to know about which porches or tunnels people were sleeping in. The local experts were asked to rate the individual blocks using the same scheme, but with the word "block" substituted for the word "tract."

Why Sample Over Time?

Now, I would like to turn to the issue of time-related problems and how we have attempted to address them in our sampling and data collection plans. Let me start by identifying four major time-related problems that we were concerned about; these include:

- changes due to weather,
- changes in the service systems,
- population movement across sampling frames, and
- definitional problems with using only currently homeless people.

Let me address each of these problems one at a time.

Changes in the weather may affect the number and distribution of homeless people in many ways. Seasonally, winter means higher utility bills that force some people out of their homes. However, warmer spring weather may actually make sleeping outside a more viable option. On a daily basis, cold or rainy weather may drive more people into shelters. We were also concerned about confounding when we collected information from a given municipality with seasonal variations. To address these problems, we have drawn independent seasonal samples, subsampled them by month, and randomly assigned shelters and blocks to the sampled nights. By subsampling for each month, we can avoid a cluster of days at the beginning or end of the season. It also helps us to avoid having all of the shelters in one municipality visited during only one of the months in a season.

Stratification by week serves to further limit the effect of a single storm or heat wave. Finally, we will be recording the actual weather on each of the sampled nights to control for daily fluctuations.

We knew *a priori* that most of the service systems in the DC area changed their level of services around April 1st of each year. We were also concerned about confounding when we collected information from a given municipality with the receipt of entitlement checks or paychecks. There are also systematic variations regarding when people enter and leave drug treatment programs, hospitals, and jails. The two independent seasonal samples are designed to capture the April 1st change in the service systems. To avoid having too many days clustered around the beginning or end of the month, when entitlement checks and paychecks often arrive in the mail, we have stratified the temporal sample by week. Potential confounding is further reduced by randomly assigning shelters and blocks to the sampled nights.

One of the historical problems with sampling homeless people has been the time of day to draw the sample and its implications for one's definition. In many DC shelters, for instance, people are entering shelter buildings from 6:00 p.m. until 6:00 a.m. However, even before everyone is in for the night, many start leaving, and up to 50% have left by 4:00 a.m. to start walking over to a soup kitchen. Thus, there is no one single time in which the population of people sleeping overnight in DC shelters can be sampled. It also means that on a given night, the same person may be in both the shelter and street frames. We are addressing the first problem by taking a systematic sample of people as they enter the shelters throughout the night. Because we do not want changes in the weather or service systems to bias any estimate of the overlap between the street and shelter frames, we will go to both every night. To further reduce any geographic bias, we have clustered the shelter and street samples. We have also selected a time to go into the street (4:00 to 5:30 a.m.) that is a period or relatively low mobility. Finally, we plan to simply ask the respondents about the overlap and whether they have ever been interviewed before. The overlap questions will look at where the respondent was during the sampled night, the last 12 months, and over a lifetime.

Throughout the day, we have talked about the problem of how homelessness is defined. Using a broader definition, or one that looks at a period of time instead of a single night, can dramatically increase the size of the resulting estimates and potentially change their characteristics. We have tried to address these problems by using a fairly broad definition, and we have looked at the overlap between our definition and others that might be used. Moreover, we have set up DC*MADS so that additional information from our sister studies can be collected and used in the study on the homeless and transient population. Our definition of homelessness includes many people who are precariously housed or living in nontraditional dwellings. In addition to their current episode of homelessness, respondents will be asked about their 12-month prevalence of homelessness. We will also be looking at the frequency with which the respondents stayed in shelters, slept on the street, and used services (e.g., soup kitchens, clinics) during the last 30 days. In our sister studies, we will also be collecting information on lifetime and 12-month prevalence of homelessness. Together, these items will helps us to look at the sensitivity of our definition in scope and time. They will also allow us to look at the sensitivity of several statistical adjustments that have been used to derive estimates of 12-month homelessness prevalence.

I would like to briefly digress on this last point. I do not personally endorse the common approach of inflating estimates of weekly prevalence of homelessness based on the inverse of time homeless to derive an annual prevalence estimate. Such an adjustment creates a prevalence of episodes, not of people. For example, if a respondent had been homeless 1 of the last 7 days, we would commonly multiply that person and their response by times 7/1 (the inverse of the probability of observation) and 52 (weeks) before adding them to an estimate of annual prevalence. In this sense they would be weighted to reflect the equivalent of 364 people who were newly homeless. The problem I have is that, if this person were actually homeless at two or more times in the year, their responses would be substantially overweighted. The proposed data set will allow us to quantify the extent of this potential bias.

Conclusion

In conclusion, the DC*MADS homeless and transient study design tries to use multiple methods and allows for multiple definitions of homelessness. We have tried to incorporate new ideas and definitions so that when the criticism comes (and everything said by those who have gone before me indicates it will inevitably come), we will be as prepared as possible. In particular, we have tried to deal with the time related problems that might bias our estimates either by neutralizing them with a thorough sampling design or by trying to incorporate them into the analysis.

Biases Arising from Choice of Site and Informant

Kim Hopper, Ph.D.
Nathan S. Kline Institute for Psychiatric Research
Orangeburg, New York 10962

Let me open by simply underscoring what has been an implicit lesson in all the presentations to this point: that is, the significant *regional variation* we can expect in all efforts to count — and correct for the inadequacies of methods of counting — homeless[1] people. Even before the enumeration effort itself is mounted, huge differences can be anticipated in the quality of initial information;[2] the cooperation of local agencies, experts and service providers; and the sheer accessibility and visibility of the target population itself. Accordingly, any effort to extrapolate to larger geographical areas either the raw counts or computed correction factors obtained from local samples, local "street-to-shelter" ratios, or local "service-using-to-non-service using" ratios, must be viewed with a great deal of caution. The ecological constants that must be in place for such extrapolations to have merit simply aren't there.

That said, let me next add my remarks to those which have already been voiced on the problems that have surfaced to date with respect to *sampling frames, the definition of homelessness,* and *the use of proxy sampling locations:*

1. *Sampling:* It has proven rather difficult to obtain the information needed to define the sampling frame accurately. For purposes of identifying the areas and specific locations ("sites") to be canvassed, for defining and mapping the boundaries of identified sites, and for assigning "density" weights (i.e., likely numbers to be encountered at each site), reliable local expertise has proven to be in short supply. The practical difficulties are multiplied in areas thought to have a large number of low density sites — the revised New York City estimates to the Census Bureau, for example, included 1547 people in 963 "off street" locations.[3] The lag between initial mapping of sites to be covered and the timing of the actual count presents a further difficulty: as that duration lengthens, prospects for disrupting, eliminating or otherwise altering the sites grow more likely (see below).

2. *Defining Homelessness:* Two brief comments may be relevant here — we have yet to build into our working definitions of "homelessness" any metric of severity or intensity. And yet, clearly, the sort of problem represented by a five-year veteran of the streets is radically different than that presented by an immigrant family temporarily doubled up by design (in order to save the money to secure a place of their own), which, in turn, is very different from the situation of precariously housed families who find themselves episodically without a "normal dwelling place" of their own. Both the actual locus/circumstances of irregular residence[4] as well as the duration and constancy of displacement are relevant dimensions of distinction that are lost in the conventionally aggregated class. To phrase the matter in anthropological terms: both the meaning and utility of "homelessness" — as well as its epidemiological analogue of "severity" — appear to vary widely by circumstance, historical origin, and local context of displacement. The radical and harrowing simplicity of the term itself may fast be approaching the limits of usefulness.

   Second: the Census Bureau's decision to exclude from the count anyone engaged in obvious "commercial activity" makes street prostitutes non-homeless by definition. Why a trade should take precedence over a residence in classifying a potential member of the

[1] I pass over here the related difficulties that arise in regional variation stemming from different ways of defining the subject class.

[2] E.g., the work and prior knowledge that went into local inventories of the "predesignated sites" to be visited by Census enumerators on S-Night.

[3] These included such difficult-to-access places as rooftops and stairwells in housing authority projects.

[4] Street vs. shelter; alone vs. with others; with kin/friends vs. with strangers; formal vs. informal "shelter;" for example.

target population isn't clear. Contemporary anecdotal observational evidence in New York City, at least, suggests that a good deal of overlap may apply.[5]

3. *Proxy Locations:* For ease of access, some have suggested sampling in soup kitchens and food pantries for a representative group of normally street-dwelling homeless individuals. There remain a number of unresolved difficulties with this strategy, as I see it. The regional variation caveat voiced above applies in full measure here: there simply are no constancies in documented patterns of use. Nor is the representativeness of the sample obtained among the service-using street-dwellers demonstrable without first having a solid grasp of the street-dwelling population as a whole. Here is a classic bootstrapping quandary: the utility of a readily accessible proxy cannot be capitalized upon until the validity of its proxy status has been shown — and that, in turn, means reverting to the original problem the proxy was meant to avert. To recall the first point: even supposing that were demonstrated in one area, there is no reason to suppose that the relevant ratios could be applied elsewhere. Patterns of survival of the street are not population traits, but strategic configurations determined by the ecology of local resource availability.

   A further problem is presented by those few studies[6] which have attempted to define non-overlapping sample fractions, using some hierarchy of spaces in which homeless people are to found. The problem is how to define the eligibility criteria for assignment to a particular stratum (e.g., soup-kitchen using, and therefore ineligible to be sampled among "street only") in such a way as to make the probability of being sampled equivalent for all defined members of that stratum. Clearly, regular users stand a much better change of being sampled than intermittent or rare users (assuming that they are considered part of that stratum).[7] Replicable technical solutions to that problem, despite some headway in a local instance or two, still elude us.

Aside from these largely conceptual or design issues, a number of practical obstacles have reared their heads in recent years.

1. Valid screening devices is the first. The casual remark tossed off in an earlier presentation about who was included in a regional survey — "people who were found and who were homeless" — skips through a minefield of difficulties. How do we know whether, on self-report alone, an individual is homeless? Rossi and his colleagues in Chicago ran into huge problems of apparent denial in "dead-of-night" screening of individuals encountered on the streets. Other investigators have reported that individuals in ambiguous settings[8] may well choose not to reveal what they consider to be a stigmatized status. On the other hand, in our own work we visited sleeping locations on the streets and public spaces of New York from midnight to 6 a.m. and ran into minimal difficulties in occupants's readiness to identify themselves as homeless.

2. The instability of "predesignated sites" is another striking finding of our recent work in New York. Huge discrepancies were found in anticipated[9] vs. actual numbers at individual site locations — in some cases, because security measures had been stepped up to deter homeless people from using that site; in some, conversely, because originally harsh policing policies had been relaxed, allowing many others to make use of the site; in others, because the "site" itself was no longer accessible (grates having been erected, for example); in still others, probably because the original projections were faulty, for whatever reason. More instructive, because observed directly, was the "loss" of sites we documented in a sixty-day period following the count. Through a combination of stepped-up

[5]So does the historical record on prostitutes generally. See Stephenaie Goldin's forthcoming work on homeless women.

[6]E.g., the work of Koegel and Burnam in Los Angeles' skid row area.

[7]Some extremely preliminary findings in New York City, in a non-representative sample of street-dwellers, suggest that perhaps as many as 20% of those interviewed had not used a soup kitchen in the last month. As mobile outreach and food distribution efforts expand, this fraction may well have increased.

[8]E.g., a transportation terminal, as opposed, for example, to a soup kitchen regularly and obviously patronized by homeless people.

[9]That is, according to projections obtained by a small army of city agencies in March and October 1989 — a mere five months before S-Night — and submitted to the Census Bureau in January 1990.

eviction or displacement procedures, fire, razing of structures, and removal for safety purposes, some 700 street-dwelling homeless were forced out of their regular habitats within the four census districts in this period. For the most part, it should be noted, these were not accidents of fate, but fateful decisions taken by local authorities or merchants.

3. Site boundaries were notoriously difficult to define in some instances. Fluctuations in repeat enumerations of the same site in our sample attest not only to changing patterns of use, but to differential competence in exploring the sites that accrued with familiarity and ease. In other cases, it became clear that a simple designation — "subway station," for example — turned out to be a rather intricate space which could be mapped in very different and equally legitimate ways, depending on the proclivities and competencies of the mapper.

Let me next turn to some provisional data, collected during the course of our own Census-sponsored work last spring, that suggest there may well be pronounced differences between homeless persons using shelters and those encountered living on the street. We were able to interview 164 street-dwelling homeless over the course of five mornings, in 15 randomly selected sites in lower Manhattan. To take only the most salient points: compared to their sheltered counterparts, the ages of male[10] street dwellers are more equally distributed, and whites are more heavily represented. Schooling shows no differences, but two measures of psychiatric history (those who have "even seen a psychiatric professional" and who were "ever hospitalized for a psychiatric problem") show significantly greater problems for the street population. Street folks are nearly twice as likely to have had a foster-care placement in their childhood and tend also to have been homeless longer than their counterparts in the shelters: 46 percent of them had been homeless for at least half of the last five years; the comparable figure for the shelter sample is 29 percent. Interestingly, over two-thirds of the respondents had used the public shelters sometime in the past, and nearly three-quarters of them cited either considerations of danger or complaints about some aspect of the structured shelter environment itself (lack of privacy, curfews, no respect, lice, filth) as their reason for not using the shelters.

Finally, a methodological cavil: the longer I am involved in this kind of research the more I am convinced of the need for greater rigor in describing — and caution in interpreting — what it is we think we have obtained through structured interviews, especially when they touch on ambiguous, difficult or personally threatening issues. The strength of the ethnographic corrective is yet to be fully applied to such work, but it is high time the effort was made.

[10]The data reported here pertain only to men; the number of women in our sample was too small for any legitimate conclusions to be drawn.

Biases from Choice of Site and Informant: Who is Missed?

Pamela J. Fischer, Ph.D.
Department of Psychiatry
School of Medicine
The Johns Hopkins University
Baltimore, Maryland

Attempts to enumerate homeless people have concentrated on the users of various services, particularly the shelter system, chiefly because sheltered people are easier to define as homeless and locate than nonshelter users (1). Actual counts of such populations, occasionally bolstered by extrapolations based on local observations and estimated street-to-shelter ratios, have provided city-specific population estimates as well as national projections of the size of the homeless population. This approach to counting homeless individuals has to a great extent paralleled research efforts to characterize the population over the past decade which have also relied heavily on surveys of sheltered populations. Thus, research methods—particularly sampling techniques—and findings can be used to assess the dimensions of the nonenumerated portion of the homeless population and identify characteristics of those homeless groups most likely to be missing or substantially undercounted.

As in research, the way in which homelessness is defined determines the choice of sites where individuals may be counted. Most censuses have targetted "literally homeless" people—those lacking immediate housing rather than those at risk of becoming homeless, such as persons doubled up in households, institutionalized people, migrant workers and other transients (2).

The success with which all individuals meeting predetermined definitional criteria can be found and counted depends in large measure upon how well the local environment is understood. Key informants have been relied upon to describe characteristics of local homeless populations and identify their geographic dispersion. However, it must be recognized that such informants are frequently biased towards that element of the homeless population with which they are most familiar rather than appreciating the wider dimensions of the total population. This is particularly true of providers of services, who often portray all homeless individuals as fitting their typical user profiles. For example, informants who operate shelters for single adults may have a distorted view of the number, characteristics and location of homeless families. Thus, the best approach to mounting a census is to use a cadre of local experts representing the widest possible view of the local homeless population to inform the design of the enumeration project in combination with other methods for investigating the local conditions, including direct observations of the movements and interviews with homeless individuals. In this way, a more complete and balanced view of population parameters can be developed in order that counting and/or sampling to project population estimates will most accurately capture the true dimensions of the homeless population.

The most serious criticism of attempts to count homeless people concern the likelihood of undercounting or otherwise misrepresenting the sociodemographic profile of the homeless population resulting from overdependence on shelter users. It is difficult to locate homeless individuals outside of shelters and other sites providing services to the homeless such as soup kitchens, for a number of reasons, some more obvious than others. For example, homeless persons cannot be unambiguously identified and counts dependent on visual cues will be biased towards the stereotypical street person wearing multiple layers of shabby clothing and carrying bags of belongings. Enumerators have supposed that people observed outdoors during the night may be presumed homeless because those with access to housing will not be abroad during the late hours. However, other categories of people, such as vendors of sexual services, also inhabit cities at night and obscure identification of the homeless. Even if

manpower can be mobilized to approach every person within a specified area, respondents may choose to deny homelessness, particularly if they perceive that harm may follow disclosure such as arrest or hospitalization. The necessity for some homeless people to hide from urban predators and/or the authorities, reduces the number available for counting.

On the other hand, although shelters offer a convenient site for counting individuals, the residents of shelters may represent only a subgroup of the total homeless population due in part to exclusionary criteria directed at potentially disruptive individuals, namely those who appear intoxicated, emotionally disturbed, or violent. Others shun shelters because they object to the religious proselytism commonly practiced or because of risk of theft and assault encountered within. Homeless subgroups that are poorly served by shelter providers (for example, homeless women, families, and youth) may be underrepresented in estimates of the total population. Thus, counts made of shelter users may reflect characteristics of the shelter system more than the homeless population per se. Consequently, attempts have been made to improve counting techniques to reflect the complexity of the homeless population including development of street-to-shelter ratios for extrapolating observational counts to the total population (2-5).

The concept that the homeless population naturally separates into two groups defined by use of services—principally shelters—has become reified despite lack of empirical evidence. Shelter-users are presumed to be more acutely homeless and high functioning relative to street dwellers who are believed to be disabled and chronically homeless. Although streets and shelters have popularly been conceptualized as polar opposites, research findings suggest there is actually a great deal of overlap between homeless persons identified on the streets and residents of shelters. In Baltimore, 582 people were surveyed on the streets, in soup kitchens, commercial plasma collection centers, and other non-shelter sites where homeless people might congregate. Two-fifths of the respondents indicated they were currently homeless; three-quarters of these reported using shelters during the previous six months (6). Similar results were found in Los Angeles where 86 percent of homeless persons sampled in outdoor congregating areas reported having used shelters within the month before the survey (7). The Urban Institute national study determined that only one-third of non-service users surveyed at congregating sites had not used a soup kitchen or shelter in the past week (4). Furthermore, studies utilizing both street and shelter samples have found few critical differences when comparing the two groups (8). Where differences exist, they appear to support somewhat elevated indicators of dysfunction among non-users of services (9-12). For example, the Urban Institute national study found that the non-users had been homeless longer, were unemployed longer, were less likely to receive public support, and had more physical and mental health problems (4). However, the great overlap in service use between homeless people surveyed within and outside the shelter system suggests that the shelter system residents compose a fairly good proxy for the total homeless population.

Consequently, despite widespread beliefs to the contrary, there is little empirical evidence that the non-service using population (street-dwelling homeless) differs substantially from the service-using population (sheltered homeless). Indeed, the current research literature suggests considerable cross-over from the streets to shelters. Therefore, shelter-based counts of homeless people may not be terribly compromised as the basis for projecting needs for services if site differences are taken into account.

It is also important to remember that absolute numbers of homeless people may be unattainable in view of the difficulties inherent in locating homeless people outside of the service system.

Research findings may aid in developing extrapolation terms by providing information on the percent of users (i.e., street-to-shelter ratios); movements of shelter users out of the shelter system into permanent housing, institutions, and into the street; and differences in service-use associated psychosocial characteristics. An additional vital area of information consists of attributes of the shelter system per se that may shape the local homeless population, such as

exclusionary rules. It is the characteristics of shelters and other services that are probably most subject to regional variation and must be accounted for in developing cross-site population estimates as well as interpreting local findings. For example, the New York City public shelter system has been described as more violent than is typically found in smaller towns and cities where shelters are smaller, mimic domestic settings, and are established by voluntary agencies. Thus, important differences in attractiveness of using shelters might be expected to influence the ratio and character of users compared to non-users.

Lastly, the importance of utilizing multiple sources of information to develop a good understanding of local conditions cannot be overstated. The best preparation for field operations might include use of expert guidance (i.e., key format surveys) combined with field observations, including interviews of homeless people in a variety of settings, to build up the composite picture of the local situation upon which enumeration projects could be based.

References

1. Cowan, C.D., W.R. Breakey, and P.J. Fischer (1988). The Methodology of Counting the Homeless. Institute of Medicine: Homelessness, Health and Human Needs. Washington, DC: National Academies Press.
2. Rossi, P., J.D. Wright, G.A. Fisher, and G. Willis (1987). The Urban Homeless: Estimating Composition and Size. Science, 235:1336-41.
3. Bobo, B.F. (1984). A Report to the Secretary on the Homeless and Emergency Shelters. Washington, DC: US Department of Housing and Urban Development.
4. Burt, M.R. and B.E. Cohen (1989). America's Homeless. Washington, DC: Urban Institute Press.
5. Robinson, F.G. (1985). Homeless People in the Nation's Capital.

   Washington, DC: University of the District of Columbia Center for Applied Research and Urban Policy.
6. Breakey, W.R., P.J. Fischer, G. Nestadt, et. al. (1989). Health and Mental Health Problems of Homeless Men and Women in Baltimore. Journal of the American Medical Association, 262(10):1352-57.
7. Burnam, A. and P. Koegel (1988). Methodology for Obtaining a Representative Sample of Homeless Persons: The Los Angeles Skid Row Study. Evaluation Review 12(2):117-52.
8. Mulkern, V., V.J. Bradley, R. Spence, S. Allein and J.E. Oldham (1985). Homelessness Needs Assessment Study: Findings and Recommendations for the Massachusetts Department of Mental Health. Boston: Human Services Research Institute.
9. Gelberg, L., L.S. Linn, and B.D. Leake (1988). Mental Health, Alcohol, and Drug Use, and Criminal History Among Homeless Adults. American Journal of Psychiatry 145(2):191-96.
10. Hannappel, M., R.J. Calsyn, and G.A. Morse (1989). Mental illness in Homeless Men: A Comparison of Shelter and Street Samples. Journal of Community Psychology, 17:304-10.
11. Rosnow, M.J., T. Shaw, and C.S. Concord (1986). Listening to the Homeless: A study of Homeless Mentally Ill Persons in Milwaukee. Psychosocial Rehabilitation Journal, 9(4):64-77.
12. Roth, D. and J. Bean (1985). Alcohol Problems and Homelessness: Findings From the Ohio study. Columbus: Office of Program Evaluation and Research, Ohio Department of Mental Health.

Estimates of the Homeless in Houston, Texas

Donald J. Baumann, Ph. D.
Trinity University
Charles Grigsby, Ph.D. and Cynthia Roberts-Gray, Ph.D.
The Resource Group

There are at least three general definitions of the homeless. **Popular definitions** are evoked by media images that raise our consciousness, stimulate our charitable impulses, and promote humane public policy. The bag lady, the sleeper on the warm grate in winter, and runaway children living in abandoned building and alleys are parts of a shared, contemporary popular definition of the homeless.

Legislated definitions that stipulate entitlement or specify conditions of eligibility for services provide a second perspective on defining homelessness. An example of a legislated definition can be found in section 103 of the McKinney Homeless Assistance Act (PL 100-77).

Research and planning definitions provide a third perspective on homelessness. These definitions are developed as an aid in conducting needs assessments, program evaluations, and action-oriented research to increase understanding of problems associated with homelessness and possible solutions. These definitions usually rely on classification systems that are based on measurable dimensions of the homeless person's environment or history such as location, time homeless, or etiology.

In the present research and planning project, sleeping arrangement was used as a means of defining homelessness. A homeless individual's sleeping arrangement is viewed as falling along a continuum ranging from low to high degrees of precariousness.

At one end of the continuum are the marginally homeless. These individuals live in a residence they do not own or rent and report a high level of precariousness: they believe that the arrangement is temporary (i.e., will last less than 1 year), and have no prospects for a similar or better arrangement (i.e., do not know where they will go after leaving). By this definition, the marginally homeless can be described as "doubling up" with friends and relatives. Further along the continuum are individuals residing in long-term shelters if the permanence of the sleeping arrangement is less than 1 year followed by those in short-term shelters if the stay is greater than 24 hours.

At the other end of the continuum are the literally homeless, ranging from those individuals who reside in emergency overnight shelters to individuals residing in abandoned buildings, to those residing in even more precarious sleeping arrangements such as other public and private places without official permission (under bridges, in alleys or parks, and so forth).

Our study area for estimating the homeless included the City of Houston, Texas, Harris county, Texas, and adjacent counties of the Gulf Coast United Way service delivery area. Only methods and data from the City of Houston will be reported here.

A four-step estimation procedure was followed. Step 1 involved familiarization. Data collectors were assigned in pairs to interview and count homeless persons in one of 5 naturally bounded areas in the city. In the first month of their involvement, they became familiar with their areas with the aid of key informants (for example, the police, the homeless, and service providers).

Step 2 involved counting by talking with individuals in selected locations within the study area. Homes in poor neighborhoods in the city of Houston were selected for systematic sampling of dwellings. Poor neighborhoods were considered those with a median household income below $15,000 in the 1980 U.S. Census. Seventy-five percent (89 of 119) of all poor neighborhoods were sampled. Within each neighborhood, 8 streets were randomly drawn and research dyads were told to choose the third house or apartment on the block to sample. If an apartment was the unit sampled, the third unit passed in the complex was chosen to sample. A sample of 200 abandoned buildings was drawn from 8,567 such cases in records maintained by the city of Houston. One hundred and seventy-six were located.

Step 3 was applied to count the number of people found residing in long-term, short-term, and emergency shelters as well as the number of literally homeless outside abandoned buildings. Following a 2-week public places count, a single night count of all shelter residents took place on July 12.

Step 4, removing redundancy, was undertaken to insure against a duplicate count among unhoused individuals. On July 13, 14, and 15 a sample of 176 individuals was drawn from public places and asked where they had spent the night of July 12. Of this 176, 10 (6%) stated they were housed, 54 (31%) stated that they stayed in abandoned buildings, 8 (4%) reported being in a shelter and the remainder in other public places (e.g., streets, under bridges). Table 1 provides the remainder of the results by sleeping arrangement with redundancy removed.

Table 1. Estimated number of homeless people in Houston, Summer 1989

Sleeping Arrangement	Marginal	Literal	Total
Housed (outlook is for staying housed less than one year	[a]108,469		
Long-term shelter	1,202		
Short-term shelter	364		
Overnight shelter		444	
Abandoned buildings		[b]5,783	
Downtown public places		277	
Public places outside of downtown but inside Houston		[c]1,136	
Total	[d]110,035	7,640	117,675

[a]17 percent of the 488 houses/apartments sampled sheltered at least one homeless person. The estimate is 0.17 x (the number of persons living in households with less than $15,000 income per U.S. Census 1980) or .17 x 63,8055 = 108,469.

[b]25 percent of the 176 sampled buildings were found to be occupied by a total of 118 individuals for an average of 2.7 persons per occupied abandoned building. Extrapolating to the entire set of 8,567 abandoned buildings, the estimate is .25 x 8,567 x 2.7 = 5,783.

[c]1,231 homeless individuals were counted in public places outside of downtown. Interview data suggested a 41 percent duplication of the other estimates — that is, 6 percent of those interviewed in public places said they were housed, 31 percent slept in abandoned buildings, and 4 percent slept in shelters. This count was adjusted down, therefore, to 0.59 x 1,231 = 726. Outside the loop, numbers were estimated based on a population density formula derived from the counts inside the loop and in the cooperating cities and unincorporated areas of Harris County.

[d]Eligibility stipulations for some federal assistance programs identify persons residing in short-and long-term shelters as being literally homeless. If all persons residing in shelters in Houston on the night of July 12 are included in the count of the literally homeless, the adjusted total are 108,469 marginally housed homeless people and 9,206 literally homeless people in Houston in the summer of 1989.

Biases From Choice of Site and Informant

George J. McCall
University of Missouri-St. Louis

As the final speaker, I can add only incrementally to what has already been said about the difficulties of counting the "hidden homeless."

My colleagues and I in St. Louis have been engaged in ethonographic work on homelessness for about three years now, principally focusing on the non-sheltered population in order to evaluate various survey studies — one-day survey investigations such as S-Night, as well as a longitudinal panel study of the homeless mentally ill.

Certainly there are quite a few homeless missed by shelter counts, even in St. Louis, even in winter. And these nonsheltered homeless do differ in composition, to some extent, from the sheltered population.

What I want to report here today are three major lessons we have learned about this bias.

(1) The magnitude — and the nature — of the bias varies temporally, defying easy correction.

A *constant* bias could be dealt with satisfactorily through application of a fairly simple correction factor. An inconstant but *consistent* bias could be handled less happily but not unreasonably. But the bias we are concerned with here today is neither constant nor even consistent.

As so many of today's speakers have noted, much of the bias in shelter counts is basically *cyclical,* varying by season, week of the month, day of the week, and so on. Cyclical influences of this sort can be corrected for in time-series designs, but never in cross-sectional studies or even in most other longitudinal designs.

An even more troubling form of inconsistent bias, however, is a bias that changes not only in magnitude but also in direction. Whereas throughout 1988 and 1989 women constituted a high proportion of those sleeping on the streets of downtown St. Louis, during 1990 practically no women slept there. This development, it is fair to say, has changed the nature (i.e., direction) of the bias. Whereas in previous years women were (at certain seasons) overrepresented among the homeless missed by shelter-count methods, they are now underrepresented.

My point is this: Even with a single method in a single city, the various biases in counting homeless are neither constant in magnitude nor necessarily even consistent in direction. No simple, generally applicable correction procedures can be relied upon in the effort to obtain accurate counts of the homeless, especially in cross-sectional studies.

(2) Sampling error is not the only — nor necessarily the principal — source of bias in counting the homeless.

The accuracy of any count of the homeless depends on success in *three* component tasks: locating, identifying, and enumerating the homeless.

Locating the Homeless. If some homeless individuals are missed, the count will be too low and — unless those missed are randomly equivalent to those located — depiction of population characteristics will be distorted. "Sampling error" of this sort has almost exclusively dominated most discussions of bias in homeless counts.

Identifying the Homeless. In classifying individuals as homeless or not, false positive classifications produce an overcount whereas false negative classifications produce an undercount. Unless these two errors of classification occur randomly, both the count and the depiction of population characteristics will be biased. We suggest that most methods for counting homeless produce false positives in excess of false negatives — sometimes in considerable excess.

Enumerating the Homeless. Each individual should be listed once and only once. Omissions produce an undercount, whereas duplications produce an overcount. Unless these two errors of listing occur randomly, both the count and the depiction of population characteristics will be biased. We suggest that most methods for counting homeless produce duplicate listings in excess of null listings — sometimes in considerable excess.

We conclude, therefore, that nonsampling error (especially, but not exclusively, error of classification and listing) may prove more biasing than the more widely discussed *sampling error.* Furthermore, the direction of bias differs also — whereas sampling error always produces undercount, nonsampling error most often produces overcount.

(3) Informants are more effective in identifying homeless than in locating them.

In the construction of their sampling frames, systematic attempts to count or estimate populations of homeless have relied on local informants for guidance as to which street blocks or other non-shelter sites are more or less likely to contain homeless individuals. As widely noted here today, such designations have proved to be of little practical worth.

The fact is that no one really knows — accurately, reliably, precisely — where the homeless may be found within any sizable city. Expert informants — police, shelter operators, even outreach workers or currently homeless individuals — have a largely second-hand knowledge of where homeless locate, apart from shelters. Even those outreach workers, homeless, and police whose rounds get them out on the streets obtain only a fragmentary picture.

As Kim Hopper stated earlier, another reason that these people don't know which sites will be fruitful is the enormous instability of the homeless scene on the streets. In our ongoing studies, we find the useful life of information on homeless locations to be about two weeks — far too short for ordinary field planning operations of large-scale survey research.

Finally, many street homeless take care to conceal their locations, particularly their sleeping spots. These locations are thus, by intention, very difficult for expert informants to learn of, whether first- or second-hand.

Even though informants are of disappointingly little assistance in the task of locating non-sheltered homeless, we have found certain kinds of informants to be very helpful indeed in the task of identifying homeless. I have in mind not so much the "indigenous" and other "expert" informants on the homeless per se — though these do have their uses and their peculiar risks. We have found "gatekeepers" of public places — libraries, bus stations, produce markets, soup kitchens, allnight restaurants, and the like — to be most helpful in sorting out which individuals in those places are homeless. Of these gatekeepers, security personnel are often particularly well informed and less reticent about disclosing information about specific individuals.

The Prevalence of Psychiatric Disorders in the Homeless

William R. Breakey, M.B., F.R.C. Psych.

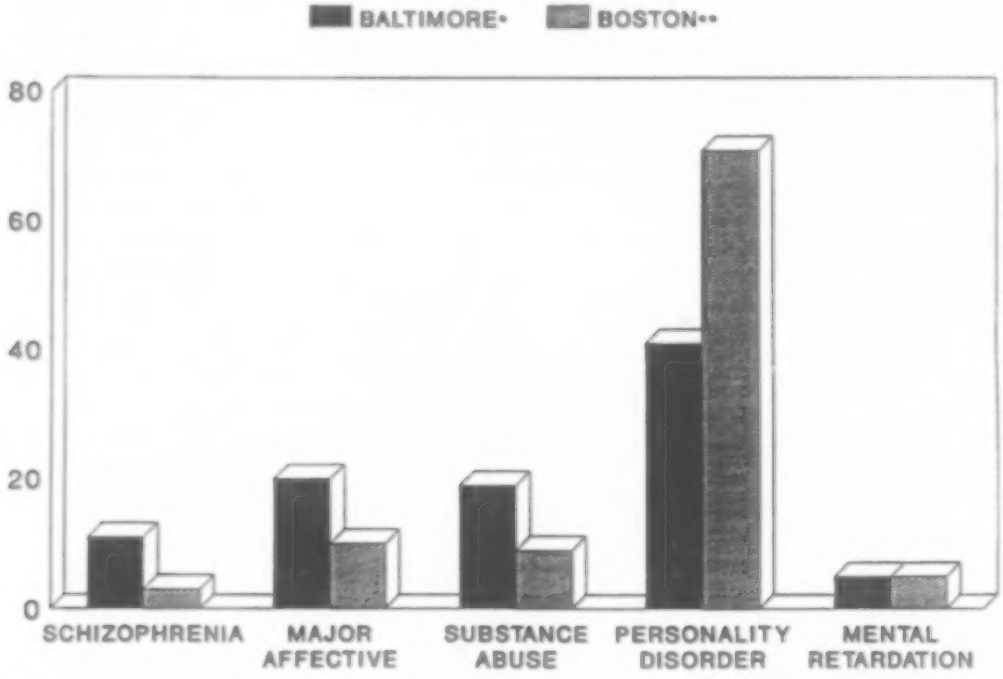
Increasing numbers of research reports on the psychiatric disorders of homeless people are appearing in the scientific literature (Fisher, 1989). Differences in estimates are often perplexing, and in many cases can be related to differences in definition, or methods of sampling or ascertainment. Any discussion of the prevalence of psychiatric disorders in the homeless is ill advised without a discussion of the methods used to derive the estimates.

SAMPLING

Here I use *sampling* to refer to the source of subjects, rather than the method of selecting individuals to minimize bias. Strategies for selection of subjects will be discussed by Dr. Dennis. The homeless population is far from homogeneous, and persons studied at one place, or drawn from one group, may appear quite different from those drawn from another. Figure 1 shows two sets of data on homeless women. The differences largely arise because one group consists of young mothers in family shelters (Bassuk et al. 1986); the other consisted of women residing in shelters which cater primarily to adults (Breakey et al. 1990). The latter group were somewhat older and more likely to have a mental illness or substance abuse problem.

FIGURE 1

Psychiatric Disorders in Homeless Women



* BREAKEY ET AL. 1990
** BASSUK ET AL. 1986

DEFINITIONS

Definition of terms is vitally important in interpreting prevalence estimates. There are many different psychiatric disorders to which homeless persons, like others, are prone. Frequently inclusive terms are used in research reports, such as *mental disorder*, which has little specific meaning unless further defined. Of the many disorders included in the Diagnostic and Statistical Manual of the American Psychiatric Association, Third Edition, Revised (DSM-III-R), which are to be included? Is alcohol abuse, for example a mental disorder? DSM-III-R includes it; many alcoholism experts would like to consider it as separate from other disorders. More recently, in mental health service discussions, the term *severe mental illness*, or *chronic mental illness* is used to denote those persons who are severely disabled by their disorder to the point where special service programs are needed for their care in the community. Some investigators have used the diagnostic categories of schizophrenia and major affective (manic-depressive) disorders as equivalent to severely mentally ill. In our work, however, we have felt it to be more in line with current practice to use a combination of diagnosis, history of extensive hospitalization and level of disability. Using these criteria, we found the prevalence of severe mental illness in the homeless to be lower than commonly reported—12.5 percent in men and 20 percent in women.

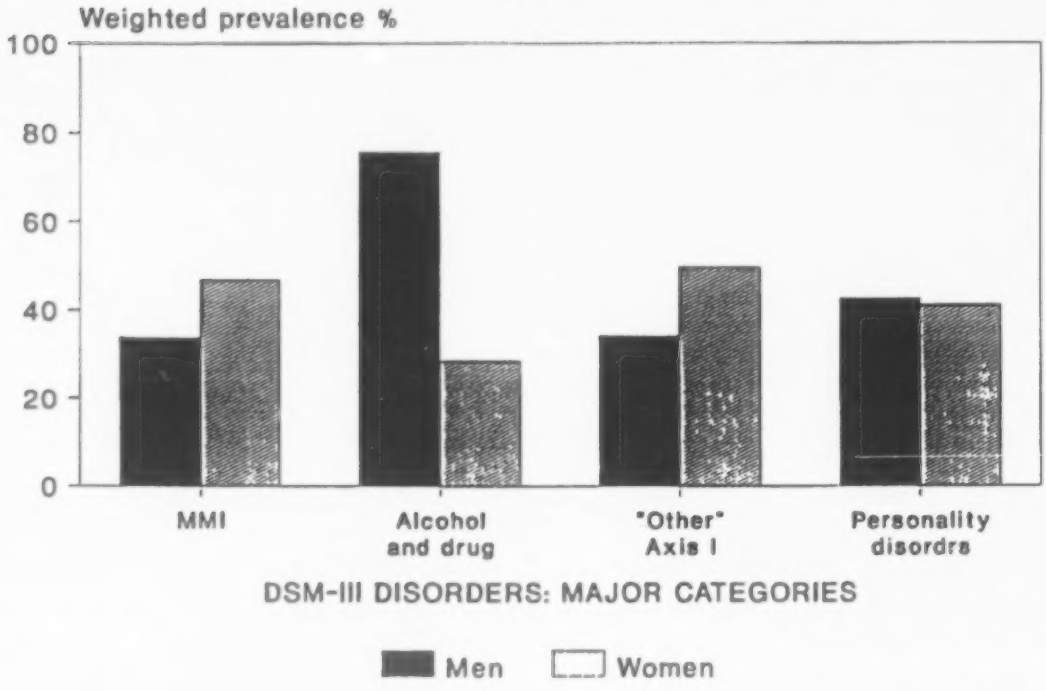
METHOD OF ASCERTAINMENT

Definition, in turn, is intimately related to the choice of ascertainment method, the method used to determine whether a person has a mental disorder. A hierarchy of methods exists, ranging from the self reports of persons seeking shelter, who answer questions such as "Have you ever been admitted to a hospital for treatment of a psychiatric disorder?" or "Do you have an emotional or mental disorder?", to a full-blown psychiatric examination by an experienced clinician using a standardized examination. Between these two extremes, there are many screening instruments of varying degrees of complexity and sophistication. Some screening instruments are designed to elicit the presence of a specific disorder, such as the Short Michigan Alcoholism Screening Test (SMAST) (Selzer et al., 1975). This instrument has been used in a number of studies of the homeless and been found to be well-suited to this purpose. Other screening tests provide a more general indicator of emotional well-being. The General Health Questionnaire (GHQ) (Goldberg, 1972) and the Center for Epidemiological Studies depression scale (CES-D) (Radloff, 1987) are examples. Homeless persons typically score higher on these measures than non-homeless persons, indicating their higher level of emotional distress. In Baltimore, average scores for homeless people were 52 percent for men and 59 percent for women, while the average score for low-income domiciled men was 20 percent and for low-income domiciled women was 24 percent. This information is useful if the intent is to demonstrate the high level of emotional distress in homeless people. However, it reveals nothing about the types of disorders present in the group, or their needs for services.

More complex instruments use structured interview methods to elicit the information needed to make a DSM-III-R diagnosis. One increasingly popular instrument is the Diagnostic Interview Schedule (Robins, 1981), which can be administered by an interviewer who is trained in the use of the instrument, but is not necessarily a trained clinician. If the purpose is to make a definitive diagnosis, a trained clinical diagnostician remains the "gold standard" against which other methods must be compared. In the Baltimore Homeless Study, for example, experienced psychiatrists used a standardized method to examine their subjects, make a diagnosis, make an estimate of level of disability and construct a treatment plan as if they were the person's treating physician (Breakey et al., 1989). In an earlier stage of the study, subjects had been asked about their histories of psychiatric hospitalization. The responses to this question were found to be very poor predictors of the presence of a mental illness, presumably because nowadays many mentally ill persons are treated outside hospitals, and many of those treated in psychiatric hospitals in the past may have suffered from some less severe mental disorder. Screening and diagnostic instruments which do not involve an experienced clinician also have the drawback that information may be missed because the method does not permit the interviewer to use his or her own judgement and skill to elicit information that the subject may not easily divulge.

One consequence of using clinicians is that, because the examiner is not confining attention to a specific set of diagnoses, but is free to use the entire DSM-III-R, a wider range of disorders is diagnosed, several disorders are likely to be identified in one subject, and the overall prevalence rates are found to be very high. In the Baltimore Homeless Study (Breakey et al., 1989) and in earlier studies in Boston (Bassuk, 1984), close to 90 percent of subjects were found to have one or more psychiatric diagnoses. Figure 2 presents data from the Baltimore Homeless Study. Disorders are grouped into four major categories, major mental illnesses (MMI), substance use disorders, other Axis I disorders and personality disorders. Individuals in many cases had two or more disorders, so that it is clear how the prevalence of *any* DSM-III-R disorder easily approaches 100 percent.

FIGURE 2



The Baltimore Homeless Study

To summarize, therefore, prevalence rates for psychiatric disorders in the homeless need to be interpreted with some care, bearing in mind the heterogeneity of the population, the definitions being used in a particular study, the methods used to ascertain the presence of a disorder, and the purposes for which the estimates were made.

References

Bassuk, E.L., Rubin L., & Lauriate, A.S. (1984). Is homelessness a mental health problem? *American Journal of Psychiatry,* 141, 1546-1550.

Bassuk, E.L., Rubin, L., & Lauriat, A.S. (1986). Characteristics of sheltered homeless families. *American Journal of Public Health*, 76, 1097-1101.

Breakey, W.R., Fisher, P.J., Kramer, M., Nestdat, G., Romanoski, A.J., Ross, A., Royal, R.M., & Stine, O.C. (1989). Health and mental health problems of homeless men and women in Baltimore. *Journal of the American Medical Association*, 262, 1352-1357.

Fisher, P.J. (1989). Estimating the prevalence of alcohol, drug and mental health problems in the contemporary homeless population: a review of the literature. *Contemporary Drug Problems*, 16:333-390.

Goldberg, D.P. (1972). *The detection of mental illness by questionnaire*. London: Oxford University Press.

Radloff, L.S. (1977). The CES-D Scale: A self-report depression scale for research in the general population. *Applied Psychological Measurements*. 1:174-181.

Robins, L.N., Helzer, J.E., Croughan, J., & Ratcliff, K.S. (1981). National Institute of Mental Health diagnostic interview schedule. *Archives of General Psychiatry*, 38:381-389.

Selzer, M.L., Vinocur, A., van Rooijen, L. (1975). A self administered short Michigan Alcoholism Screening Test (SMAST). *Journal of Studies on Alcohol*, 36(1):.117-126.

Issues in the Selection of Measures for Studies of Homeless Populations

Elmer L. Struening
School of Public Health, Columbia University

The purpose of my presentation is to identify some of the problems in the selection and use of measures in the study of homeless populations, to assess the potential influence of situational factors on the responses of research participants, and to describe guiding principles that may enhance the quality of measures and the data generated by them.

The general concern is that measures developed and standardized on representative samples of the general population should not be used in studies of the various groups which comprise the homeless populations. More specifically, the reliability and validity of standard measures are questioned when they are applied to homeless populations. The issue is further complicated by the potential influence of situational or contextual factors on the meaning and interpretation of responses to the elements or items measured.

To obtain a measure for a study, the researcher(s) must be keenly aware of the specific purposes of the study and the nature of the conclusions they wish to draw from the data generated by the measure. Most of the constructs we attempt to measure in studies of the homeless are unusually complex and multidimensional in structure. As examples, consider the many facets of mental illness or mental disorder, substance use and abuse, alcohol dependency, and the status and criteria of being homeless. The measurement of mental illness suggests the consideration of symptoms, treatment history, high risk behavior (suicide attempts), interview behavior, functional competence, psychotic belief symptoms, diagnostic categories and others. Assessment procedures must also consider a time frame (current, recent, remote, ever) and the source of information (for example, client report, interviewer rating, significant other, case managers, record systems, and treatment personnel.)

Another important issue is whether the study design requires measurement of change due to, for example, a particular intervention, or the conditions of homelessness. If measurement of change is required, the measure selected, revised, or developed must have the necessary psychometric and content properties to generate reliable change scores as an outcome variable.

The researchers will frequently profit from a review of the literature on the construction of measures being considered for their studies. In particular, published articles using the measure with populations similar to the study sample will generally provide valuable information on the performance of the measure. The development of a network of colleagues involved in studies of homeless populations will frequently result in an exchange of unpublished work that will prove useful in making measurement decisions. Finally, experts with competence in applied psychometric principles and with consultation experience in health services research may contribute greatly to the quality of the data so crucial to the testing of hypotheses.

The following recommendations were derived from experiences which my colleague and I have had in the course of our studies of homeless populations. We have interviewed almost 3,000 homeless people in shelters, the streets and a variety of follow up settings. Later, in the data analytic writing phases of our work, we reviewed the results of earlier decisions on measures and, as always, identified questions we should have asked.

1. It is important to select or develop measures which meet the logical (research design), substantive and theoretical demands of the study. For example, if an intervention study is planned, it is crucial that the measures reflect the influence of the elements of the intervention if evidence for change in the client population is to be demonstrated. As indicated above, it is equally important to employ measures that are sufficiently reliable

(internal consistency reliability coefficients of around .80 or above) to generate reliable change scores which accurately reflect client change from baseline to subsequent points of observation. Measures of change, in addition to adequately sampling the domain of interest (content validity), must also describe clients on a metric or dimension that allows them to change in either direction as a function of the impact of the intervention or other influences. Scales or measures which place the majority of their subjects at the high or low end of the continuum obviously prevent the necessary freedom to change in either direction.

2. A second set of variables should provide a comprehensive and meaningful description of study subjects. Variables should be coded to enhance the possibility of sample comparisons and the generalization of results to other regions of the country. Arbitrary coding of variables may preclude accurate comparisons and should be avoided. The use of standard classification systems, such as the decennial census or the procedures generally used in the literature, may improve sample matching accuracy. This is especially important in studies of homeless populations which may vary greatly nationally as a function of weather, housing stock, the structure of services and other factors.

3. Because homeless people frequently experience dangerous, hostile and stressful environments in which they are often victimized, there is concern with the possibility that scores on measures may partially reflect the respondent's reaction to these powerful environmental factors rather than only to an enduring mental condition that is generally characteristic of the individual. Instruments sensitive to environmental conditions may generate spuriously high or low scores and thus attribute a different mental status to the respondent than otherwise warranted. For example, a scale designed to measure psychotic beliefs and feelings includes an item which states: Have you ever felt that there were people who wanted to hurt or harm you? Since victimization rates for a period of one year are over 70 percent, an affirmative answer would seem to accurately reflect, for many respondents, the true nature of their environments. While this question is supposed to measure a tendency toward paranoid thinking (that someone is out to get you), responses to it are likely to reflect environmental conditions. Evidence for this conclusion is provided by elevated scores on this item when compared with the response patterns of other items used to measure psychotic ideation or thinking.

   Certain behaviors of homeless people that appear to be unusual, strange, or bizarre, may instead by an attempt at self protection rather than a manifestation of psychopathology. For a more detailed discussion of the above issues, see Lovell, Barrow and Struening, in press (available from the authors).

4. Pilot studies of the target population are of great value in identifying problems with measures. Administration of the instrument in situations similar to those of the planned study will add an element of reality for interviewers in training. Once the interview is completed, the interviewer should go over the items comprising the measures with the respondent to assess her/his understanding of item content, to see if item content was insensitive to the respondent's situation (for example, it seems insensitive to ask a homeless person if her/his life is a failure), to estimate if the instrument seems to measure what it is expected to measure according to the interviewer, and other issues of interest.

A second type of pilot should be based on complete interviews of 30 to 50 respondents representative of the target populations. Key questions about the instruments of this data set include the following:

1. Do the instruments used generate variability among those interviewed?
2. If the instruments were selected to measure change, is there room for most respondents to move up and down the continuum measured?
3. Are the estimates of reliability within the acceptable range (ideally about .80 or above if used to measure changes).
4. Did the measure generate missing data and, if so, was it concentrated on the same items or was it more less random over items?

5. Are relationships among scale or measure scores in the expected range of magnitude and direction?

The above are some of the crucial questions that should be asked of a pilot study focused on properties of the measures. While an N of 30-50 may be considered small, the results, if based on a representative sample of the target population, will almost certainly yield valuable information. Completion of the interviews will also provide an opportunity to fine tune the skills of the interviewers and to get their evaluations of how the instruments function in a field situation.

6. In addition to the paper cited above (Lovell, Barrow and Struening, in press), published articles by Sussser, Canover and Struening, 1989; Susser, Struening and Conover, 1989; and Susser and Struening, 1990, provide information relevant to the selection and use of measures employed in studies of homeless populations. A report by Struening and colleagues, 1986 (available on request), provides results derived from measures frequently used in studies of homeless populations. Another paper by Struening and Padget, (in press, available from authors), presents information on the health status of shelter residents as related to problems with alcohol, drugs and mental disorder.

References

Lovell AM., Barrow SM, Struening EL. Between Relevance and Rigor: Methodological Issues in Studying Mental Health and Homelessness. In: Jahiel RI, ed. *Homelessness: A Preventative Approach.* Baltimore, Md: The Johns Hopkins University Press (copies available from the authors.)

Susser E, Conover S, Struening EL. Problems of Epidemiologic Method in Assessing the Type and Extent of Mental Illness Among Homeless Adults. *Hospital and Community Psychiatry,* 40:261-265, 1989.

Susser E, Struening EL, Conover S. Psychiatric Problems in Homeless Men. Lifetime Psychosis, Substance Use, and Current Distress in New Arrivals at New York City Shelters. *Archives of General Psychiatry,* 46:845-850, 1989.

Susser ES, Struening EL. Diagnosis and Screening for Psychotic Disorders in a Study of the Homeless. 16:133-145, 1990.

Struening EL, Padgett DK. *Associations of Physical Health Status With Substance Use, Substance Abuse and Mental Disorder in Homeless Adults.* In press (1991)

Struening EL. Characteristics of New York City Shelter Residents: Report to the New York City Department of Mental Health, Mental Retardation, and Alcoholism Services. New York: New York State Psychiatric Institute, Epdemiology of Mental Disorders Research Department, 1986 (copies available from author).

Sampling Issues in Estimating the Extent of Alcohol, Drug Abuse, and Mental Illiness Problems Among People Who are Homeless

Michael L. Dennis, Ph.D. and
Ronaldo Iachan, Ph.D.
Research Triangle Institute

Because this conference focuses on estimating the number of people who are homeless, it seems useful to start by asking ourselves: why is estimating the extent of alcohol, drug abuse and mental illness (ADM) among homeless people important? Two important reasons are that the McKinney Act (P.L. 100-77) and its subsequent reauthorizations specifically called for programs to meet the needs of disabled people who become homeless and the large portion of homeless people who have a disability. It is estimated that three out of four homeless people have one or more disabilities (Fischer, 1989; Rossi, 1990), including:

- Alcoholism (33%),
- Mental illness (33%),
- Physical disability (25%),
- Drug abuse (20%), and
- Criminal records (20%).

To effectively plan programs to treat homeless people with one or more of the ADM disabilities, it is essential to know how many people are in need, what their needs are, and to what extent these needs are being currently addressed.

The second question we must address is: why are sampling issues important in estimating the prevalence of ADM disabilities and treatment needs? Three basic reasons are that estimates in prior studies have varied considerably by study, by sites within studies and by the underlying sampling methodology. In a review of 80 studies, Fischer (1989) found that ADM prevalence estimates varied from 1 percent to 90 percent. Part of the problem was that some studies used programs that targeted people with ADM disabilities, while others used programs that actively discouraged them. However, even with a single study of five New York City mental health programs' homeless persons, Barrow and colleagues (1989) found substantial variability among sites. For instance, the frequency of prior psychiatric hospitalizations ranged from 54 percent to 77 percent. This problem is further confounded with variability in the chronicity of the homeless people being interviewed: the percentage of people with brief or episodic periods of homelessness varied from 33 percent to 93 percent by site. The types of sites sampled (e.g., clinic, shelter, soup kitchen, street) and the types of selection methods within sites (e.g., snowballing, random, census) also led to disparate estimates within the same city (Dennis et al., 1989; Fischer, 1989).

Sampling Issues

When existing studies are being compared or a new one is being planned to estimate the prevalence of ADM disabilities and treatment needs, it is important to address three main sampling issues: the definition of homelessness, the methods used to make the estimate, and the types of places that were sampled.

Defining Homelessness

Definitions of who can be considered homeless can vary both in terms of scope and time. A line can be drawn along several points of a continuum that ranges from people in streets and shelters, to those trading sex for shelter, to those in unreliable housing (e.g., facing eviction due to condemnation), to those in single resident occupancy (SRO) hotels or doubled-up in apartments or homes. Definitions also vary in the extent to which they are limited to currently homeless people or include people who are about to become homeless or who have been homeless in the recent past. The brief and sometimes episodic nature of homelessness can make broader definitions more useful for program planners. Santiago and colleagues (1988), for instance, found that changing their definition from "currently homeless" to "homeless in the last 3 months" increased by 50 percent the number of people identified as homeless at the Kino Hospital Emergency Room in Arizona.

Four Potential Methods

Having determined a definition, three basic methods can be used to develop estimates of ADM disability prevalence and treatment needs: indirect estimation, unobtrusive observation, and surveys. Although experts have often be surveyed to derive indirect estimates, the first method is of questionable validity and extremely sensitive to statistical manipulation (Applebaum, 1986; Cowan, Breakey, & Fischer, 1988). It is informative to note that the two most divergent estimates of the total number of homeless people used this method (i.e., Hombs and Snyder, 1982, 2.2 million, and HUD, 1984, 250,000 to 300,000).

Unobtrusive observations constitute one of the more cost effective ways to estimate the general number of people who are homeless, but they are problematic for estimating ADM disabilities and treatment needs. Simple observations can provide raw counts (c.f., Wiegard, 1985), but they are not reliable for estimating disabilities. Medical records can provide useful information (c.f., Wright, 1988), but they are only useful if medical personnel are consistently screening for ADM problems and recording their findings.

Surveys that employ interviewers and/or relevant clinicians are more useful for conducting assessments of ADM disabilities and treatment needs. See, for example, Rossi, Fisher, and Willis (1986) in Chicago; Farr, Kogel and Burnam (1986) and Burnam (1990) in Los Angeles; Dennis et al. (1990) in Washington, DC; and Ringwalt and Iachan (1990), a national homeless runaway study. One of the major limitations of this method is the potential for respondents to lie about or forget information when talking to a interviewer or clinician. Testing biological specimens of urine, saliva, blood, and hair can identify some additional problems; however, they are often less sensitive than a survey to prior events (e.g., age at first use of a drug, prior hospitalization).

In a carefully designed study, each of these methods can be used to determine the consequences of using more restrictive definitions and to look at trends over time. It is important to distinguish, however, between studies that collect data on multiple occasions from those that have multiple samples. If a sample of shelters is visited over a two-week period, it would be inappropriate to look at the trend over time. Such comparisons are only appropriate if there are two or more independent samples or subsamples (e.g., one sample is visited the first week and a second sample the second week). To the extent that data allow us to identify individuals uniquely, multiple observations can also be used for more sophisticated statistical models such as capture-recapture.

One way to address methodological and resource limitations is to use a combination of the above methods. One of the common ways used to estimate the total population size has been to survey people in shelters or at soup kitchens, ask experts to estimate the proportion of homeless people who come to the sampled sites, then extrapolate an estimate. There are two primary problems with this method. First, direct estimates of the number of people in the street,

based on unobtrusive observations and surveys, have been several magnitudes smaller in size than those from indirect estimates by experts. Second, there is a potential interaction between ADM characteristics and the probability of being in the sample. For instance, a municipality's shelter system may have a strong antidrug policy and no treatment capacity. A sample of shelter residents in this municipality would grossly underestimate the number of homeless people needing drug treatment.

Potential Sampling Frames

Four potential types of places or sampling frames can be used to develop representative estimates for a larger municipality or service system: shelters, streets, congregating points, and other housing frames. Although they clearly do not cover the entire population, emergency shelters are the most widely used frame and are relatively straightforward to use. They do, however, present some problems for special populations; i.e., domestic violence shelters are often hidden away to protect their clients, and runaway shelters can also serve as official foster home placement locations. A street frame of nondwellings, vacant buildings, cars, and parks offers the potential of finding many of the other literally homeless people, but this frame is relatively expensive and requires good stratification information on the expected density of homeless people in each area. Congregating points like soup kitchens, hospitals, jails, and other pass through points are particularly useful for studies that use a wider definition in time. On the down side, they may require substantially more screening. Other housing frames such as general households, prisons, schools, and group quarters may be necessary for some of the broadest possible definitions, but these frames are very expensive in the context of locating people who have been or are homeless. One potential solution being tried in the DC Metropolitan Area Drug Study (DC*MADS) is to coordinate a homeless study with studies of other populations (Dennis et al., 1990).

Implications of Sampling for Program Planning and Evaluation

Sampling issues are important in estimating the extent of ADM disabilities and treatment needs for people who are homeless. It is feasible and probably desirable to use multiple definitions, methods, and sampling frames. Work still needs to be done on directly comparing ADM estimates by methodology and sampling frames. Although validity studies aimed at estimating the number of homeless people are potentially useful, they rarely have indicated the amount of bias related to specific ADM disabilities or treatment needs.

References

Applebaum, R. P. (1986). Counting the homeless. Paper presented at the George Washington University Conference on Homelessness, Washington, DC.

Barrow, S. M., Hellman, F., Lovell, A. M., Plapinger, J. D., & Struening, E. L. (1989). *Effectiveness of Programs for the Mentally Ill Homeless: Final Report* (NIMH Grant No. 1R18MH38924-01 and New York City DMHMRAS Grant No. 87206-88206). New York, NY: New York State Psychiatric Institute, Community Support Systems Evaluation Program.

Burnam, A. (1990). The L.A. skid row study. Part of M. Burt & C. Taeuber (eds.), "Overview of seven studies that counted or estimated homeless populations." In *Proceedings of Conference on Enumerating Homeless Persons: Methods and Data Needs.* Washington, DC: U.S. Government Printing Office, 1991.

Cowan, C. D., Breakey, W. R., & Fischer, P. J. (1988). The methodology of counting the homeless. In *Homelessness, Health and Human Needs* (Institute of Medicine). Washington, DC: National Academy Press.

Dennis, M. L., Burwell, B. O., Fischer, P. J., Etheridge, R. M., Lubalin, J. S., & Schlenger, W. E. (1989). *Implementation Evaluation Design for NIMH McKinney Mental Health Services Demonstration Projects for Homeless Mentally Ill Adults: Volume 3. Lessons From the Literature* (PHS Contract No. 282-88-0019/1). Research Triangle Park, NC: Research Triangle Institute.

Dennis, M. L., Iachan, R., Thornberry, J. P. S., & Bray, R. M. (In Press). The DC Metropolitan Area Drug Study (DC*MADS): Homeless and transient population study. Part of M. Burt & C. Taeuber (Eds.), "Overview of seven studies that counted or estimated homeless populations." In *Proceedings of Conference on Enumerating Homeless Persons: Methods and Data Needs.* Washington, DC: U.S. Government Printing Office, 1991.

Farr, R. K., Kogel, P., & Burnam, A. (1986). *A Study of Homelessness and Mental Illness in the Skid Row Area of Los Angeles* (NIMH Grant No. 1HR MH36809-01). Los Angeles, CA: Department of Mental Health.

Fischer, P. J. (1989). Estimating the prevalence of alcohol, drug and mental health problems in the contemporary homeless population: A review of the literature. *Contemporary Drug Problems: An Interdisciplinary Quarterly,* 16(3), 333-389.

Hombs, M. E., & Snyder, M. (1982). *Homeless in America: A Forced March to Nowhere.* Washington, DC: Community for Creative Nonviolence.

Housing and Urban Development (1984). *A report to the Secretary on the Homeless and Emergency Shelters.* Washington, DC: U.S. Department of Housing and Urban Development.

Ringwalt, C., & Iachan, R. (1990). Design summary of proposed study to estimate the characteristics of runaway and homeless youths. Research Triangle Park, NC: Research Triangle Institute.

Rossi, P. H. (1990). The old homeless and the new homelessness in historical perspective. *American Psychologist,* 45(8), 954-959.

Rossi, P. H., Fisher, G. A., & Willis, G. (1986). *The Condition of the Homeless of Chicago.* Amherst, MA, and Chicago, IL: Social and Demographic Research Institute and NORC.

Santiago, J. M., Bachrach, L. L., Berren, M. R., & Hannah, M. T. (1988). Defining the homeless mentally ill: A methodological note. *Hospital and Community Psychiatry,* 39(10):1,100-1,101.

Wiegard, R. B. (1985). Counting the homeless. *American Demographics,* 7(12), 34-37.

Wright, J.D. (1988). Methodological issues in the evaluation of programs for homeless persons: Lessons from the Johnson-Pew Health Care for the Homeless Program. Presentation at the American Evaluation Association, Annual Conference, New Orleans, LA, October 27. New Orleans, LA: Department of Sociology, Tulane University.

Discussant Comments

Howard H. Goldman, M.D., Ph.D.

The presentations in this panel focused on the issues of mental illness, alcoholism, and other drug problems in the population of homeless Americans. Although the authors do not agree fully on methods, these excellent presentations reflect the interest and commitment of these investigators to help solve the problem of homelessness in impaired populations.

It should not be surprising that estimates of the number of homeless persons varies so widely, given variation in the definitions of homelessness and the varying interests of the numerous surveys. Census takers want to know "how many," epidemiologists want to know "what kinds" at "what risk," and service researchers want to know "how to predict service use." The census is used to achieve equitable representation in Congress, epidemiologic surveys tell us the scope of a problem, and needs assessment studies help us plan for services. Precision of estimates ought to be assessed in the context of the questions asked and the objectives of the inquiry.

Unfortunately, I am concerned that the general focus of this conference is motivated by a misplaced concern about the precision of population size estimates rather than a concern about the role of such estimates in solving the problem of homelessness in the United States.

We ought not enumerate problems if we do not intend to do something about solving them. Even the lowest estimates of the number of homeless persons in America exceeds by an order of magnitude those who have been provided with material assistance toward anything more than a stop-gap effort at solving their problem with homelessness. For special populations, such as those impaired by mental disorders, including alcohol and other drug abuse, the problems of special attention in the enumerations are particularly troublesome. We ought to be careful that we distinguish the mentally ill person from other individuals who are homeless so that we might provide them with appropriate special services rather than to further stigmatize them by "blaming these victims" for their homelessness. By all means, let us provide appropriate care for the disabled among the homeless. Let us not, however, assume that such special assistance will relieve us of the need to provide them with material support and affordable housing in particular.

Counting the Homeless: What Counts?

David S. Cordray
Vanderbilt University

I have been asked to provide a summary of the issues raised during yesterday's presentations and panel discussions. Given the variety of interests represented within this conference, it is not surprising that many issues were raised. These ranged from technical points about specific estimation methods to political statements about what we should be doing to assist homeless persons. As such, providing a coherent summary of what transpired is probably impossible, or at least, would require considerably more space than I have been allocated.

Rather, I will focus on a subset of issues that are germane to estimating the size and composition of the homeless population. Consonant with the title of this paper, I will focus first on the issue of "what counts" in counting (or more accurately, estimating) the size and composition of this population. The real point I wish to make, however, is that the shear number of factors that must be considered (i.e., what counts) result in the need to make technical and practical tradeoffs. Some of these trade-offs will make researchers nervous. How these trade-offs can be made will be illustrated with an example based on a recent GAO (1989) report.

What Counts?

In an effort to distill some of the themes that emerged from comments made by our panelists, participants, and presenters, it appears that at least five factors need to be taken into account in developing studies about the size and composition of the homeless population. In brief:

1. The *definition* of homelessness makes a substantial difference in the magnitude of estimates. There is little consensus about what constitutes an acceptable definition, however. Those that are used can be highly restrictive or all inclusive. Naturally, restrictive definitions (e.g., individuals have to be "on the streets" for at least 14 days) will yield estimates suggesting that homelessness is far less pervasive than will estimates based on a broad conception of the problem (e.g., definitions that include individuals who are "at risk" of homelessness). The issue of definitions also involves temporal considerations (duration), distinctions between incidence and prevalence, and the dynamics of homelessness;

2. The *methods* (e.g., street surveys, administrative records, key informants) that are used count in the sense that each is fallible—but some are less trustworthy than others—and they are likely to over or underestimate the size of the population (GAO, 1988);

3. The *reason* for counting, in the first place, also counts. If the main reason for attempting to understand the size and composition of the population is to improve service delivery, definitions (i.e., who gets counted, and where) and methods (i.e., how the estimate is derived) are likely to be different than if the goal of the estimation procedure is simply to derive a national or sub-national figure;

4. The amount of *resources* (human and otherwise) available to conduct the count or estimate is an important consideration; and

5. The amount of *time* available to obtain an answer to the questions counts in choosing definitions, developing methodologies and so on.

The "Balancing Act"

This list is not new nor is it remarkably insightful. In any research area, our job is to balance these competing constraints. This balancing act is simply harder to carry-off in the area of homelessness. There are technical, practical and political reasons for this. It seems reasonable to think that if we had enough money and time, a statistically proper estimate of the entire

population could be obtained. Peter Rossi has persuaded me that this is not, in practice, possible. Even with enough time and money, the rapid transition in the composition of this population would almost certainly invalidate even precise estimates. Although longitudinal studies (panel and crosssectional) could be undertaken, political changes in the acceptability of definitions suggests additional sources of slippage. So, while money and time are important, and good studies take both, they are not sufficient. If we reduce our sights some, we can reduce the time and resources needed to conduct a study in a variety of ways. For example, a precise, national estimate could be obtained if we imposed a limited definition of homelessness (e.g., only those individuals located in shelters). Politically, such a trade-off is likely to engender claims of bias. To counter these claims requires a broadening of the definition of homelessness. Is there a way out of this "catch-22"? One solution is to rely on mixed-methodologies as a means of piecing together a variety of estimates of this complex population.

Mixed-Methods Approach: An Illustration

A mixed-method approach entails the use of a variety of methods to derive an overall estimate. However, because not all methods are equally trustworthy (different methods—actual enumerations, expert opinion, population extrapolations—contain different strengths and weaknesses), accuracy of results produced by each method needs to be documented and disclosed to the user. Differential trustworthiness resulting from statistical and nonstatistical sources of error and bias can be incorporated into "confidence intervals or ranges" based on sensitivity analyses.

This approach was used in a recently completed study (I served as study director) issued by the U.S. General Accounting Office, Washington, D.C. (GAO,1989). Although some of the issues we faced were idiosyncratic, others were generic and have immediate application to other issues in the field (e.g., estimating prevalence of subgroups). Similarly, the analytic tactics (e.g., sensitivity analysis) used are general enough to be useful in other areas.

Origins of the GAO Study

In reauthorizing the Stewart B. McKinney Homeless Assistance Act, July 22, 1987 (Public Law 100-77), Congress requested that the GAO provide an estimate of the number of homeless children and youths in all the states. That same legislation also required the Secretary of Education to compile and submit to Congress, through state education agencies, data on the number and location of homeless children and youth. The department issued its report on February 15, 1989. In essence, the mandated count to be performed by GAO was intended as a double check on the accuracy of the departments efforts. On June 15, 1989, we (GAO) issued its report to ranking members of appropriate committees in the U.S. Senate (Edward M. Kennedy) and the House of Representatives (Augustus F. Hawkins). Note that the Congressional language, in essence, asked for full, national enumeration. They also wanted the count within 12 months. Through a series of negotiations, we all settled on an estimate based on a representative sample. Other trade-offs will be made clearer as the example unfolds.

The Definition of Homelessness Makes a Difference

As shown in Table 1, using a variety of methods, GAO estimated that on a given night (actually, October 24, 1988), about 68,000 children and youths (16 or younger) may be members of families that are literally homeless. Decomposing this estimate into its component parts it is clear that the numbers differ across settings (our definition of homelessness). As might be expected, homeless children and youths are not evenly distributed across the different locations where homeless families are thought to congregate or "reside." Nationwide, urban shelters and hotels housed families with roughly 25,500 children and youths; about 21,800 are likely to be in suburban and rural areas; churches account for about 4000; abandoned buildings, cars, or public places are likely to be called "home" by about 9000; and about 7000 may be in various other settings (e.g., institutions).

A broad interpretation of the McKinney Act suggests that the estimated 68,000 homeless children and youths may represent only part of the potential homeless population, namely those who are literally homeless. Although estimates derived from a number of different settings were used to compose our definition of literal homelessness, many advocates and stakeholders view this is a fairly narrow conceptualization of the problem. As a means of broadening the definition, we attempted to estimate those believed to be precariously housed (e.g., doubled-up with relatives or friends). As reported in Table 1, this group is quite large, representing an additional 186,000 children and youths who could be considered homeless on a given day. These estimates do not include homeless runaway children and youth; nor do they account for those families who may be on the brink of homelessness by virtue of their economic situation. Despite these omissions, adding the number of precariously housed to the number of individuals who are literally homeless reveals that, on any given night, by these various definitions, over 250,000 children and youth might be considered homeless.

One important aspect of this example turns around the manner in which definitions were established and results were disclosed. Because there is no accepted definition of homelessness, we chose a broad definition but estimates were deliberately reported in as much detail as was practicable. Simply reporting an aggregate figure (say 250,000), would have made it impossible for relevant constituencies to know how much each component of the definition contributed to the overall total. This is consistent with the suggestions provided by the National Institute of Mental Health (see GAO, 1988) and recent practices used by the Bureau of the Census (Taeuber and Siegel, 1990). Not only are the utility of survey results greatly enhanced if data are presented in the disaggregated (i.e., setting by setting) form as shown in Table 1, such practices side-step the issue of which definition is correct. Further, disaggregated reporting implies (and indeed, encourages) that the broadest possible definition (within resource constraints) should be used in future surveys. When idiosyncratic definitions and operationalizations of homelessness are used across different sites (e.g., localities), presenting separable estimates (by subgroup) is essential if we are going to be to make intelligent use of the results of such estimation exercises.

Definitions, Time, and Resource Constraints Influence Methods

Opting for a broad definition of homelessness and one that fairly represented the potential settings where the literal homeless are likely to be found had substantial consequences for the estimation procedures that could be employed. The purist in all of us would probably like to use a common set of procedures (across settings) that could be defended on statistical grounds. In attempting to meet the request of Congress, we had to rely on a unique mixture of methodological strategies in piecing together our overall estimates. Basically, our strategy involved three steps and multiple methods (a count, expert opinions, and population-based extrapolations).

Our first method is very traditional. It entailed the use of survey methods whereby we obtained an unduplicated estimate of the number of children and youth in shelters and hotels (or motels) in 40 large urban areas (populations in excess of 250,000), representing 27 cities. A multi-stage probability sample was drawn to select shelters; a telephone survey was used to obtain counts of the number of children housed in shelters on a particular night (October 24, 1988); and the number of vouchers for hotel or motel accommodations issued by the county were obtained for that same night. This method was intended to provide nationally representative estimate of the number of children and youths in shelters and hotels or motels in urban counties. It also served as the foundation for our other estimation procedures.

To use sample-based methodology to obtain estimates in other settings (e.g., streets) would have been prohibitively expensive and time consuming. We opted for an approximation. In particular, the second phase of the study involved developing separate estimates of the number of children and youths in some of the other settings used to define literal homelessness. These were derived by using the survey-based county estimates in conjunction with expert opinion. Relative to the counts, the expert ratings reflects their estimates of the proportions of homeless children and youths in each of these other settings. The same procedures were used to obtain estimates of the number of children and youths who might be precariously housed (e.g., doubled-up).

As above, using sampling methods to simply identify children and youths in urban and suburban areas would have been too time consuming and expensive. Again, we used an approximation based on a different methodology. For estimates of children and youths in rural and suburban areas, actual survey-based counts were used in conjunction with other estimates (derived from the empirical literature) and population counts in nonurban areas. Here, estimates based on the median homelessness rate across our 27 cities were used to project the homelessness rate relative to the population base in rural and suburban areas. Rather than relying on expert opinion, these estimates utilized extant data on population size in non-urban areas and estimates from phase 1 of the study.

Finally, as a check on the sensibility of the estimates produced by these procedures, we compared the results we derived with results reported in other national studies, one conducted by the Urban Institute (1988) and the other conducted by the Institute of Medicine (1988). We also examined interim and final reports submitted by state education agencies to the U.S. Department of Education (U.S. Department of Education, 1989).

Accounting for Methodological Differences

Although estimates were produced for each setting with the definition of homelessness, they are obviously not of equal integrity. As shown in Table 1, to account for the "precision of each estimate" we also calculated "ranges" similar to "confidence intervals." With the exception of the survey results, these were not ordinary confidence intervals (in the sense of classical statistics). Rather, we used sensitivity analyses as a basis for determining the robustness of each estimate. This produced an upper and lower boundary for each setting x method combination. Whereas an ordinary confidence interval uses the error of estimate as the basis for specifying the interval within which the true population value will be found, our interval estimation procedures altered key parameters or assumptions underlying each calculation. In this way, we were able to provide the user with a sense of the stability and sensitivity (to alternative assumptions) of each value. To make this concrete, we also provided a verbal description of our overall confidence in each estimate; these ranged from low to high confidence.

For example, little is known about the prevalence of homelessness in suburban and rural areas. Because our initial sampling frame was restricted to large urban areas, we would have underestimated the number of homeless children and youth by omitting suburban and rural areas. Prior studies of the homeless population in suburban areas have assumed that prevalence is about one-third the rate of central cities. In creating the lower boundary for our confidence interval or range, we used one-third the median rate of homelessness found in our sample of 27 cities. In constructing the upper boundary, we assumed that the median rate was appropriate. Here, the "best guess," point estimate ended up being the average of the high and low boundary values. Although these values are derived from extrapolations of estimates (our own estimate from the survey results) and compounded estimates (an estimate from another study applied to our survey-based estimate) we judged the confidence that might be placed in these values as moderate; below the confidence we placed in the survey results (see Table 1) and ahead of the confidence ascribed to the opinion-based estimates corresponding to numbers derived about the numbers housed in churches, in public places, in other settings like institutions, and those in doubled-up situations.

Specifically, the opinion-based estimates were derived from interviews with shelter providers, advocates, and knowledgeable government officials in the sample of 40 counties (covering 27 cities). Over 300 individuals provided their countywide estimates of the relative number of homeless families residing in settings other than public or privately sponsored shelters and hotels. These responses were converted to ratios that, when applied to the estimated number of families in shelters, provided estimates of the number of families in other settings. The median ratios for each county were computed along with lower and upper bound values (first and third quartile respectively). The results show that opinion based estimates are very sensitive to the choice of values (median, first or third quartile), depicting a substantial range in values. As seen in Table 1, using the median ratios derived within counties produces an estimated number of double-up children and youth of approximately 186,000, nation wide. The range, however, suggests that there may be as few as 39,000 to as high as nearly 300,000

depending upon how the data are summarized across experts at the individual county-level. The ranges for other estimates using this method are also quite broad. This is especially true for expert-based assessments of the number of children and youths that are likely to be in public places. Because of this hyper-sensitivity, we judged the confidence that should be placed in opinion-based estimates as low.

Sensitivity analyses are helpful to a certain extent but cannot establish, with certainty, the overall sensibleness of a set of calculations. As can be seen, the decisions that were made on high versus low estimates, while based on logic and, where possible, prior data are but a subset of all the possible values that could have been chosen. And, while it is better to provide the client or user with a sense of the likely confidence that should be placed in the numbers that are produced, bracketing in this way does have its inherent limitations. Unreasonable assumptions could be imposed that impose, artificially, a level of uncertainty that is not warranted. Varying parameters on irrelevant assumptions lead to a false sense of certainty.

Comparisons With Other Estimates

As a means of judging the adequacy of these methods a second form of multi-method research can be used. Namely, competing estimates from parallel studies. That is, it is useful to compare the obtained results with other estimates, when available. Two recently published reports served as the basis for other national estimates of the number of homeless children and youths. The Institute of Medicine (1988), using data from the National Alliance to End Homelessness, estimated that 100,000 children and youth are literally homeless. Recall that our estimate was roughly 68,000. Careful review of the IOM methodology suggests several noncomparabilities across procedures. Adjusting the IOM estimate to reflect new information on service utilization (see GAO, 1989, p.31)—a key assumption in the IOM estimate—reveals an adjusted estimate of 87,000; although this re-estimated figure is closer to our best-guess value of 68,000, it was about 23 percent higher than our comparable estimate. However, it is well within the confidence range we established for our estimate of the number of literally homeless. In another report, the Urban Institute, under contract with the U.S. Department of Agriculture, conducted a study of homeless in shelters and soup kitchens in a sample of 20 cities with populations greater than 100,000. They extrapolated their findings to the nation. They reported that there are approximately 61,500 children in cities and suburban areas. Our comparable estimate was 60,710, excluding rural settings. Although, none of the present studies are, by themselves, able to stand up to close technical scrutiny, the fact they differ in approach and converge within a reasonably close "confidence range" suggests that we probably have a sensible understanding of the magnitude of the problem. Estimates produced by compilations reported to the Department of Education were so noncomparable, among states and with our procedures, that meaningful comparisons were impossible (see GAO, 1989).

Conclusions

Estimating the number of homeless and the composition of this population requires consideration of numerous technical, political and resource issues. It is highly unlikely that enough money to support a large scale, statistically sound estimate of the number of homeless children and youth, or any other subpopulation, will be forthcoming. As such, we will have to continue to rely on methods that are likely to make us, as research methodologists, nervous. The alternative, of course, is to avoid trying to estimate those segments of the homeless population that are not easily enumerated by conventional methods like surveys. The politics of counting special populations, by only focusing on the easy to find segments, suggests that would be a sure-fire way of loosing credibility. A more sensible set of tactics is to use all available methods, recognize their special baises, and to tackle the problem of differential trustworthiness head-on. This can be done by providing empirically-based assessments of the influence of biases, assumptions, other sources of uncertainty, and providing constituencies with "consumer warnings" about how much faith to place in point estimates.

References

Institute of Medicine (1988) *Homelessness, Health, and Human Needs.* Washington, D.C.: Institute of Medicine.

Taeuber, C.M. & Siegel, P.M. Counting the Nation's Homeless Population: Lessons From the 1990 Census. Paper presented at the 98th Annual Convention of the American Psychological Association, Boston, Massachusetts, August, 11, 1990.

Urban Institute (1988) *Feeding the Homeless: Does the Prepared Meals Provision Help? Vols. 1 & 2* Washington, D.C.: The Urban Institute.

U.S. Department of Education (1989) *Report to Congress: Education of Homeless Children and Youth—State Grants.* Washington, D.C.: U.S. Department of Education.

U.S. General Accounting Office (1989) *Children and Youths: About 68,000 Homeless and 186,000 in Shared Housing at Any Given Time.* Washington, D.C.: U.S. General Accounting Office. (GAO/PEMD-89-14).

U.S. General Accounting Office (1988) *Homeless Mentally Ill: Problems and Options in Estimating the Numbers and Trends.* Washington, D.C.: U.S. General Accounting Office. (GAO/PEMD-88-24).

Sampling Issues

Facilitator: John Thompson
Presenters: Martha Burt and Franklin James
Notes by: Catherine Hines

Summary

Major sampling issues are who to include in the sampling frame, where to go, and how hard to try to contact all possible homeless persons. Given the costs, is it necessary to try to count the total homeless population? For example, if you use service sites to survey homeless persons, do you also need to try to contact non-service users or can you use a correction factor (that is, a user:nonuser ratio) and how accurate would that factor have to be? Rural areas are less likely to have services. Perhaps the focus of research should be on vulnerable people and identification of factors that trigger homelessness and service needs.

For street surveys, blocks with a low probability of having homeless persons should be included because changes in the blocks actually used can occur quickly.

Participants discussed the characteristics that link the precariously housed to the homeless and how to use existing surveys such as the Current Population Survey, the American Housing Survey, the 1990 census, and the Survey of Income and Program Participation.

Sampling homeless youth is an issue because they use different services or no services and cannot be defined easily (e.g., are you homeless if you have a home but don't go there because of abuse?). There are also legal and ethical issues about reporting them to authorities. Some homeless youth stay with relatives while their parents go to a shelter.

Definitional Issues

Facilitator: Richard Bitzer
Presenter: David Cordray
Notes by: Cynthia Taeuber

Opening Comments by David Cordray, Vanderbilt University

No definition of homelessness is universally acceptable. The definitions that have been used have an *ad hoc* flavor influenced by politics, data that are available, and choosing obvious settings. There are steps we could take to clarify the concept, the markers for the condition called "homeless."

First, we need to develop a *conceptual* framework for defining homelessness and markers that would represent the homeless condition. Markers might include a ratio of housing costs to income, length of homeless episodes, safety of the environment to which a person could return (for example, battered women), and legal priority in housing.

Second, we would identify the locations where there is a high probability of finding individuals with the markers of homelessness.

Third, we would develop a sorting device to identify people within the sites for the markers. The sorting devices refer to questions on the questionnaire and tabulation of the data. Surveys should do less screening people out of the survey so that we can learn more about the range of characteristics of persons at a site likely to have homeless persons. We need to provide more detail in data presentations.

Fourth, we should clarify our definitions and the research on markers now by looking backwards at known settings (for example, what are the circumstances of first-time shelter users?). We don't need to wait for new research. We already have knowledge about some of the conditions and markers of precariousness such as whether a person has a normal, routine place to stay or whether they depend on formal institutional support for a place to stay, whether they have housing tenure (that is, a legal, contractual right to be at the house), and whether the housing is safe for them.

Recommendations

1. We should undertake comprehensive research on the *conditions* of homelessness: (1) develop a conceptual framework and markers associated with the conditions of homelessness; (2) identify probable sites where people with the named markers are likely to be found; and (3) develop sorting devices to identify people within sites for the markers and show data for the continuum of markers.
2. To clarify definitions, we need to go backwards and provide more detail in data tabulations for groups with the specified markers or characteristics.
3. We know more than we think we know about conditions and markers of precariousness and we should make better use of data already collected.

Validity, Feasibility, and Cost Effectiveness of Strategies to Include Persons not in Ordinary Dwellings

Facilitator: Sue Miskura
Presenter: Michael Dennis
Notes by: Charles Moore

Opening Comments by Michael Dennis, Research Triangle Institute

The number of people who are homeless has been in dispute for the better part of a decade. Estimates range from under 200,000 (HUD, 1984) to over 2,000,000 (Hombs & Snyder, 1982). The reasons for these divergent estimates include the politics of service delivery, definitional differences, and the methodologies used to generate an estimate. Advocates for homeless people argue for higher estimates and appear genuinely concerned that, if accepted, a lower estimate would lead to a reduction in already inadequate treatment funding. Although the more rigorous methodologies tend to produce lower estimates, both scientists and providers are increasingly calling for a change in focus (GAO, 1988). During the conference on enumerating the homeless yesterday, there appeared to be broad-based support for estimating the number of people with unmet treatment needs and for developing the resources that would be necessary to address those needs. Although simple enumeration can be done through unobtrusive observation, a needs assessment cannot. Methodological differences therefore will become increasingly more relevant as this consensus builds.

To estimate treatment needs, the next generation of studies must use probability-based samples so that their estimates can be extrapolated to the larger population. Four primary places or frames exist for sampling homeless people:

- *Street locations*, including vacant buildings, abandoned cars, parks, under bridges, transportation vehicles, and 24-hour public facilities;
- *Service locations*, including soup kitchens, health care clinics, and drop-in centers;
- *Emergency shelters*, including short-term housing, transitional housing, battered women's shelters, homeless runaway shelters, and hotel rooms purchased with municipal emergency housing coupons; and
- *Other residential facilities*, including jails, prisons, mental health facilities, drug treatment facilities, single residency occupancy (SRO) hotels, and general households.

The places that are used have implicit implications for how homelessness is defined and on the size of the resulting estimates. Early discussions have focused on the cost of estimating the number of homeless people based on one or more of these types of locations. To date, no direct comparisons have been made across the four types of locations within the same study.

As we move toward an emphasis on service needs, concerns are also increasing about other types of biases that might be introduced during the selection of a sampling frame. For instance, suppose that a municipality has a strict antidrug policy in its shelters. Estimates of the number of homeless people needing drug treatment would probably be depressed if they were based solely on a shelter sample. There is no reason to believe that mental illness, alcoholism, or other disabilities are independent of a person's service utilization or housing status. Therefore, it seems sensible to make direct comparisons of estimates based on the four locations and their combinations. Specifically, answers are needed to such questions as:

- What is the overlap of people identified at the four locations?
- How do estimates based on the four locations or their combination differ in terms of the incidence and prevalence of substance abuse, mental illness, health problems, and physical disabilities?
- How do estimates based on the four locations or their combination differ in terms of treatment utilization for substance abuse, mental illness, health problems, and physical disabilities?

The combined data set would also allow the relationship(s) between the prevalence of these disabilities, the availability of treatment, and housing status to be studied more closely. Although considerable work has already been done to establish the feasibility and reliability of several methods, no major studies of validity or cost-effectiveness have been published that involve direct comparisons of the major sampling frames. Validity studies, moreover, on the screeners often used in street or service locations do not yet exist. The working group agreed that such validity studies should be built into future research. Fannie Mae has expressed an interest in this area and is sponsoring the development of a paper on "Assessing the Feasibility, Reliability, Validity, and Cost-effectiveness of Different Methodologies for Enumerating Homeless People" for its conference in May 1991 (Dennis, in press).

References

Dennis, M.L. (forthcoming). Assessing the feasibility, reliability, validity, and cost-effectiveness of different methodologies for enumerating homeless people. A paper to be presented at the Fannie Mae Conference on Counting the Homeless: The Methodologies, Politics, and Social Significance Behind the Numbers. Washington, DC. May 1991.

General Accounting Office. (1988, August). Homeless mentally ill. Problems and options in estimating numbers and trends (GAO/PEMD-88-24). Gaithersburg, MD: Author.

Hombs, M. E., & Snyder, M. (1982). Homeless in America: A forced march to nowhere. Washington, DC: Community for Creative Nonviolence.

Housing and Urban Development (1984). A report to the Secretary on the Homeless and Emergency Shelters. Washington, DC: U.S. Department of Housing and Urban Development.

Opening Comments by Barrett Lee, Pennsylvania State University

I have approached this session by posing a series of questions about sampling, in light of the need for certain kinds of data. First of all, most of the sampling approaches that resemble anything classic appear to apply almost exclusively to urban areas. In rural areas, geographical or census tract sampling is not necessarily helpful, a "street search" probably will not work because people are not very visible, since most of the homeless are staying with family or friends on an emergency basis. Further, short time periods of one night or one week will probably not turn up enough people for a stable estimate. Other approaches such as snowball sampling are probably necessary, and an assumption must be made that they will result in contacting virtually all homeless people. If it is seen as important from a policy perspective to understand rural homelessness, are there ways that we can think of to identify and interview homeless people in rural areas? Are we likely to be limited to local studies, or is there anything possible nationally? Still on the topic of national possibilities, what are we to do, even if we limit ourselves to urban areas? Rossi has estimated an adequate national survey using his block probability approach would cost upwards of $10 million — not a sum anyone is likely to spend on such a project. What are our alternatives? How good could we make studies based on sampling at service providers? What if we extended the time period? For instance, the recent study in Hawaii determined that about 90 percent of the homeless used services at least once over a 90-day period, even though only about 8 percent slept in shelters on any given night.

Could we make some reasonable approximations by using unduplicated service use data over a reasonable time period coupled with periodic interviews in street locations to determine service use by people found on the streets? How might such an alternative approach differ by localities, or by seasons? How do we know whether any estimate derived from this type of combined approach is "good enough," and for whom or what? In studies that want to do street searches, what might we recommend to address how to handle low-probability blocks? About approaching people to screen them for homelessness? About doing "known locations" rather than true sampling designs? What recommendations would we make about procedures for stratifying based on the probability of finding homeless people there? For what time period are these identifications accurate; how quickly do homeless people change the places they hang out? There are few easy answers to these questions, but they are topics I think we might profitably discuss.

Group Recommendations

1. A basic need is to analyze and define the purpose of any data collection effort. There are different needs and purposes between federal and state/local efforts, and also within these categories. The various purposes should be coordinated with the ultimate objective of trying to design multipurpose data collection efforts.

2. This conference and sponsoring forums have begun the task of consolidating data about experiences and results from many different data collection efforts; this activity needs to continue so that differences in methodologies, the applicability of varying methodologies for different purposes and different assumptions and results can be analyzed. The goal would be to determine the strengths and weaknesses of these experiences as they relate to specific purposes.

3. Take advantage of opportunities to do validity testing of some of the assumptions or methodologies that have been employed. In particular:

   a. Validate screening mechanisms to determine the conditions of persons who get screened out.

   b. Validate the Census Bureau's S-Night technique of asking someone leaving an abandoned building about how many people slept there.

   c. Validate assumptions made about overlap of frames — that is, the proportion of people captured on the streets, in shelters, in soup kitchens, and using other services.

   d. Validate frames that can be defined using outreach techniques.

4. Research the robustness of definitions of "homeless" that have or could be used. How robust are they in relation to factors such as sampling or interviewing over time, the kind of information that can be obtained reliably from the population, periods of homelessness, extrapolation methods, and overlap of frames.

5. Work needs to be done on developing fruitful interviewing techniques. Determine ways of recruiting and/or training interviewers who are sensitive to the situation of the homeless population, ways of using open-ended and informal interviewing techniques, and being aware of ways to ask questions.

6. To address the issue of cost effectiveness, develop analyses that will address what it costs not to have this information.

7. Do further work on ways to ensure the completeness of the frame. Working with localities will not yield either complete shelter or street location frames. What kinds of areas can be provided by advocates, outreach workers, or local service providers? What kind of sampling techniques can be used to ensure efficient representation of all areas where the population can be found?

Estimating Undercounts and Examining Data Quality

Facilitator: Elizabeth Martin
Presenter: Charles Cowan
Notes by: Florence Abramson

Opening Comments by Charles Cowan, Opinion Research Corporation

There are three methods used for local estimates of the size of the homeless population, each involving different techniques and assumptions. The first is the straight count method, which involves doing a shelter count combined with a street count. The shelter count is usually a census, but the street count is more traditionally done by selecting a random sample of blocks and conducting the street count only on sample blocks. This method is a very traditional technique grounded in sampling theory.

The second technique is less direct, but related to the first. This is the modified count method, where a complete shelter count is conducted. To get an estimate of the number of homeless in the local area, a multiplier is applied to the shelter count. The multiplier usually comes from previous research in an area, from other source data, from other similar local area research, or a best guess. The multiplier represents the number of homeless expected to be found on the street relative to the number found in shelters (e.g., for every four homeless persons found in a shelter, one is expected to be found on the street). The application of the multiplier takes us into the realm of modeling, but forces the researcher into making a major assumption about the data and the behavior of the homeless in the area.

The third and final technique is expressly a modeling technique, where one of several probabilistic mechanisms can be used to describe how the population might be found in a research study. One approach is the use of capture-recapture methods, where the homeless are observed multiple times, and the frequency of observation of the individuals is used to model the size of the entire population. Another approach is to use the amount of time each individual is found in a shelter as a survival time to model the average time in shelters for the whole population, which, when combined with shelter counts, can be expanded to an estimate of the entire population.

The straight count method has the advantage of being conducted only once and providing a straight-forward estimate of the population size for the area. But the straight count can have severe undercounts which would go undetected if the interviewers or researchers conducting the study are incomplete in their listings of shelters or blocks, or if they look at a skewed sample of blocks. Model based approaches can overcome some of these foibles by including parameters in the model that allow for the difficulty of observing an individual, but can have other deficiencies caused by misspecification of the model.

In either case, the only way to determine undercounts and the quality of the data is to conduct secondary studies which are designed to evaluate the quality of the data collected and the adequacy of the models employed. This session should start by considering what types of secondary studies are needed to provide this type of information.

Summary of Discussion

The group considered data quality in the narrow sense, focussing on the quality of counts of the homeless population and how one might assess quality. How good a count is good enough? What measures are needed to tell us how good a count is in any given survey?

The different approaches described by Cowan imply different treatments of undercount: in the first and second, one asks how good the count data are; in the second and third, one asks how good the parameters and the model are. The group concluded that it probably would be possible to estimate undercount of the sheltered population because it is possible to construct a sampling frame which covers a high proportion of this part of the homeless population. On the other hand, it is probably not yet possible to estimate undercount of the unsheltered population. It is not clear yet how to design a sample frame or search strategy to find and enumerate this segment of the homeless population, nor is it clear how to evaluate the results of any particular search strategy.

Recommendations

1. *More basic research* is needed to support improvements in methods for enumerating homeless. This includes research to improve and validate estimates of parameters upon which estimates from models are based. Technical work is needed to improve the quality of estimates of the ratio of shelter-tostreet population, screening procedures or other methods to identify homeless persons, and measures of entrances to and exits from the population. Research is needed on alternative sampling frames and search strategies for the unsheltered population without stable locations where they may be found and surveyed. The group noted the need for studies of behavior in relation to geography, the spatial distribution and movement of the homeless population. It would be useful to conduct a multi-city study using different methods and exploring different contextual variables that affect the quality of the counts. Possibly, contextual factors systematically influence key parameters such as the street-to-shelter ratio and should be taken into account in estimation. We recommend exploring alternative sources of information to evaluate counts (including a variety of administrative records from institutions such as jails, mental hospitals, and hospitals). All sources of information are subject to error, however.
2. *Better documentation and more assessment* of how censuses and surveys of the homeless population were carried out, and how estimates of the size of the population were calculated. This includes documentation of what was done, what assumptions were made and the basis for making them, and limitations of the data. If any portion of an estimate is based on a probability sample, it would be useful to construct confidence limits for that portion. An expert opinion sample is not a sample. If any estimate is based on expert opinion then a discussion evaluating that expertise is warranted. Judgments of experts should not be taken at face value. We should improve the sophistication of our use of expert judgments by employing the large literature in cognitive psychology and other fields to evaluate sources of bias and error in expert judgments. We recommend auxiliary studies to assess the accuracy and validity of the methods and assumptions on which estimates and counts are based. It would be useful to conduct side studies to make lower-bound estimates of the numbers and characteristics of persons missed in local surveys or censuses of the homeless population.

Longitudinal Studies, Estimation Methods That Use Administrative Records, and Modelling Techniques

Facilitator: Paula Schneider
Presenter: Elmer Streuning
Notes by: Ron Manderscheid

Recommendations

1. "Intelligent segmentation" of the homeless population into policy relevant groups will be critical in the future for intervention, rehabilitation, and prevention.
2. Longitudinal studies are badly needed for those at risk of becoming homeless, as well as those currently in shelters or on the streets. Unlike point prevalence studies, longitudinal studies can help us to understand changes in population composition, morbidity and mortality, service provision, and outcome.
3. In contrast to studies with the person as the analytic unit, a major need exists to conduct aggregate studies to model overall population dynamics to predict the structure and composition of the homeless population. For example, the Current Population Survey and the American Housing Survey could be used to predict "marker variables" related to the size and composition of the homeless population. Such "marker variables" need to be identified and validated through longitudinal, person-oriented surveys. The national surveys used in these aggregate analyses also need revision to increase their utility for these applications.
4. A clear need exists for better federal interagency collaboration on research regarding the homeless, including the linking of diverse federal data sets, the sharing of expertise across agencies and departments, and the expansion of research to include federal departments that currently do not have a research mission in this area such as the Department of Labor and the Department of Transportation.
5. A clearinghouse needs to be developed to catalog past and current studies at the federal, state, and local levels to guide future research endeavors.

Methods to Estimate the "At Risk" Population

Facilitator: Jay Waite
Presenter: Duane McGough
Notes by: Annetta Walker

Opening Comments by Duane McGough, Department of Housing and Urban Development

The "at risk" population includes people such as unrelated individuals in households, second families unrelated to the householder, people in transient housing, and people with high housing costs relative to their income.

The Department of Housing and Urban Development and the Census Bureau plan to test questions in the American Housing Survey (AHS) 1991 national survey for recent movers (moved within 12 months before the survey). They will be asked about any episodes of homelessness they may have experienced. The suggestion for this inquiry came from Franklin James of the University of Colorado, Denver, Graduate School of Public Affairs. The questions will be tested and then further refined on a panel of the 1991 AHS metropolitan surveys. They will build on questions currently in the AHS regarding the previous residence of household members. The current list (house, apartment, mobile home, other type of residence) will be expanded to include Single Room Occupancy (SRO) hotels, transitional housing, shelters, automobiles, street, and so on. An attempt may be made to cover the 12 months prior to moving into the current residence to obtain all types of homeless experiences. If there are problems of recall, the AHS will ask for the immediately previous place of residence only. If any of the "homeless situations" are reported, the respondent will be asked if that was because the individual or family/household unit had no permanent place of residence.

The purpose of the new questions is to determine the characteristics of persons who had been homeless but managed the transition to permanent housing. Since the AHS interviews at housing units but not at group quarters such as shelters or institutions, the data is for "success" stories only. Characteristics of all homeless persons and families cannot be inferred from these data.

Summary of Discussion and Recommendations

The "at risk" population refers to persons precariously housed who may be on the threshold of becoming homeless. As with any survey, the operational definition of who to include in the study is critical to the planning and implementation of the study and the results obtained. Currently, there is no definition agreed upon by researchers of who should or should not be included as "at risk." The purpose of the data determines the target group for inclusion in the survey (for example, single mothers, abused women, substance abusers).

Before researchers can define the number of persons who are "at risk" of becoming homeless, they must determine the risk factors for homelessness. For example, income is not the only factor and cannot be used by itself as a predictor. Different subgroups have different risks. Single mothers, for example, have different needs and risks than do the mentally ill or substance abusers. To reliably estimate the "at risk" population, one must collect characteristics of different population groups who are homeless. Once such data are collected, researchers may be able to develop a diagram which identifies a combination of factors that predict a person's chances of becoming homeless.

Why is there a need to define the "at risk" population?

1. Prevention policies: If the number of persons in this group can be identified, can programs be designed to prevent such persons from becoming homeless?
2. Trend analysis: Can researchers predict trends in homelessness? For example, is the homeless population getting bigger? Is the composition changing? How do the trends in the United States compare with other countries?

It was the consensus of the group that more research and data about the subpopulation groups are needed before a reliable statistical model can be developed to estimate the number of persons "at risk" of becoming homeless.

Conference Participants

Federal Government

Bureau of the Census
Washington, DC 20233

Barrett-Pennix, Dianne
Birnbaum, Nicholas
Bitzer, Rick
Brown, David
Bryant, Barbara
Campanelli, Pam
Connolly, John
Gregg, Valerie
Grimm, Sheila
Harley, Diana
Hay, Carolyn
Hayes, Ed
Heelen, Pat
Hines, Cathy
Jean, Anne
Jones, Shirley
Jones, Tom
Kaufman, Jack
Keeley, Cathy
King, William
Lacy, Velma
Landman, Cheryl
Marker, David
Martin, Elizabeth
Maynard, Jane
McKenney, Nampeo
Miller, Catherine
Miskura, Susan
Montaluan, Patricia
Montfort, Ed
Moore, Charles
Moyer, Laurie
Osson, Jerry
Paisano, Edna
Perez, Margarita
Picino, Tony
Pike, Ed
Reeder, John
Roland, Sandra
Schneider, Paula
Schwanz, Dennis
Schwede, Laurel
Siegel, Paul
Smith, Warren
Taeuber, Cynthia
Thompson, John
Wagner, Ed
Waite, Jay
Walker, Annetta
Woltman, Henry
Yangas, Rosalinda

Housing and Urban Development
451 7th St., SW
Washington, DC 20410

Benjamin, Robert
Calyadilla, Jose
Casey, Connie
Devine, Deborah
Frohm, Marge
Hoben, James
Janis, Carissa
Johnston, Mark
Kondratas, Anna
Leavengood, Ted
McGough, Duane
Roanhouse, Mike
Underhill, Jack

Department of Education
400 Maryland Ave., SW
Washington, DC 20202-6132

Bydume, Doreen
McKee, Patricia
Vinson, Francine

Department of Justice
10th & Pennsylvania Ave., NW
Washington, DC 20530

Korytkowski, Susan
Reiser, Judy

General Services Administration
18th and F Sts., NW
Washington, DC 20405

Lomax, Marjorie
Metz, Patte
Triplet, Steve
Winter, Ray

Department of Commerce
14th and Constitution, NW
Washington, DC 20230

Molloy, Jane
Plant, Mark

Department of Agriculture
Food and Nutrition Service
Office of Analysis and Evaluation
3101 Park Center Dr.
Alexandria, VA 22302

Benderly, Jordan
Deputy Director

Bingham, Kilolo
Program Analyst

Fay, Barbara
Program Analyst

Kowal, Boyd
Program Analyst

Department of Health and Human Services

Norry, Len
HHES, Iverson 302
Washington, DC 20233

Turek-Brezina, Joan
Director of Technical and Computer Support
Department of Health and Human Services
Humphrey Bldg.
Rm 438 F
Washington, DC

Interagency Council on the Homeless
451 7th St., SW
Washington, DC 20410

Carlile, Pat
Executive Director

Ferguson, George
Deputy Director

Henderson, Marsha
Director, Monitoring and Evaluation

Margrill, Lisa
Policy Analyst

Other Federal Government

Knorr, Gregg
Statistician
ETA/OSPPD
U.S. Department of Labor
200 Constitution Ave., NW
Rm N 5629
Washington, DC 20210

Simmons, Patrick
Research Analyst
Housing Policy Research
Fannie Mae 1H-1E
3900 Wisconsin Ave., NW
Washington, DC 20016

McDonnell, James
Technical Coordinator (HPM-1)
Office of Highway Information Management
Federal Highway Administration
Room 3306
400 Seventh St., SW
Washington, DC 20590

Haberman, Herman
Chief, Statistical Policy Branch
NEOB, Office of Management and Budget
725 17th St., NW Rm 3228
Washington, DC 20503

Muschamp, Robert
Postal Service
475 L'Enfant Plaza, SW
Washington, DC 20260

Federal Health Agencies

National Institute of Mental Health
Buckner, John
Office of the Director
5600 Fishers Ln. Rm 7C-06
Rockville, MD 20857

National Institute of Mental Health
5225 Pooks Hill Road
Bethesda, MD 20814

Manderschied, Ron
Rog, Debra J.
Straw, Roger

NIDA
5600 Fishers Lane
Room 11A-55
Rockville, MD 20857

National Institute on Alcohol Abuse

Huebner, Robert
Parklawn Building
Rockville, MD 20857

National Institute of Drug and Alcohol Abuse

Lambert, Elizabeth
5225 Pooks Hill Rd.
Bethesda, MD 20814

Scott, Jack
NIAAA

Congress

Bryant, Paul
Senate Appropriations Committee
Dirksen 136
Washington, DC 20510-6025

Wasem, Ruth
Education and Public Welfare Division
LM 320
Library of Congress
Washington, DC 20540

Wilkie, Shelly
Subcommittee on Census and Population
Committee on Post Office and Civil Service
608 House Office Bldg. Annex 1
Washington, DC 20515

Williams, Jennifer
Congressional Research Service
Government Division
Library of Congress
Washington, DC 20540

Foreign Governments

Department of the Environment - Great Britain

Duncan, Sue
Department of the Environment
Social Research Division
Room N7104A
2 Marsham St.
London SW IP 3EB
England

Statistics Canada
Tunney's Pasture
Ottowa, Ontario
CANADA K1A0T6

Giles, Phillip
Boxhill, Wally

State and Local Government

Connor, Carmen
Montgomery County Government
Dept. of Family Resources
101 Monroe St.
Rockville, MD 20850

Streuning, Elmer
New York State Psychiatric Institute
100 Haven Avenue
Tower 2, Apt. 31D
New York, NY 10031

Experts University

Bartelt, David
Institute for Public Policy Studies
Temple University
Philadelphia, PA 19140

Cordray, David
Dept. of Human Resources and Development
Box 90-GPC
Vanderbilt University
Nashville, TN 37203

Dockett, Kathleen
Department of Psychology
University of the District of Columbia
4200 Connecticut Avenue, NW
Washington, DC 20008

Doharty, Diane
Georgetown University
Washington, D.C.

Ellickson, Robert
Mayer Professor of Property and Urban Law
Yale Law School
P.O. Box 401A Yale Station
New Haven, CT 06520

First, Richard
Ohio State University
College of Social Work
Homeless Research Project
012 Mount Hall
1050 Carmack Rd.
Columbus, OH 43210

Fischer, Pamela
Johns Hopkins University
Hamptom House, Room 593
624 North Broadway
Baltimore, MD 21205

Goldman, Howard
Department of Psychiatry
University of Maryland at Baltimore
645 West Redwood Street
Baltimore, MD 21201

Goldstein, Ira
Institute for Public Policy Studies
Temple University
Philadelphia, PA 19140

Hirschl, Thomas
Cornell University
Department of Rural Sociology
134 Warren Hall
Ithaca, NY 14853-7801

James, Franklin
University of Colorado
Campus Box 142
P.O. Box 173364
Denver, CO 80217-3364

Johnson, Alice
Mandell School of Applied Social Work
Case Western University
Cleveland, OH 44106

Lagory, Mark
Department of Sociology
University of Alabama
University Station
Birmingham, AL 35294

Lee, Barrett A.
Department of Sociology
Pennsylvania State University
University Park, PA 16802

Martin, Marsha
Hunter College
School of Social Work
129 E. 79th Street
New York, NY 10021

McCall, George
University of Missouri-St. Louis
7952 Natural Bridge Road
St. Louis, MO 63121

Naito, Lisa
University of Hawaii

Piliavin, Irving
Department of Sociology
University of Wisconsin
8128 Social Science Building
Madison, WI 53706

Ritchey, Ferris
University of Alabama

Rossi, Peter
University of Massachusetts
34 Stagecoach Road
Amherst, MA 01002

Stein, Michael
University of Missouri
7952 Natural Bridge Rd.
St. Louis, MO 63121

Toomey, Beverly
Ohio State University
College of Social Work
Homeless Research Project
012 Mount Hall
1050 Carmack Rd.
Columbus, OH 43210

Williams, Charles
University of the District of Columbia
Center for Applied Research and Urban Policy, MB4802
4200 Connecticut Avenue, NW
Washington, DC 20008

Private

Adler, Wendy
National Governor's Association
444 North Capitol Street
Suite 250
Washington, DC 20001

Bassin, Gail
Johnson, Bassin, & Shaw
8737 Colesville Road, #800
Silver Spring, MD 20910

Baumann, Donald
The Resource Group
213 South Lamar
Suite 201
Austin, TX 78704

Bray, Robert
Research Triangle Institute
3040 Cornwallis Road
Hobbs Building
Research Triangle Park, NC 27709

Burnam, Audrey
Rand Corporation
1700 Main Street
Santa Monica, CA 90406

Burt, Martha
The Urban Institute
2100 M St., NW
Washington, DC 20037

Casino, Bruce
Fried, Frank, Harris,
Shriver & Jacobson
1001 Penn Ave, NW
Suite 800
Washington, DC 20004

Cazares, Art
Johnson, Bassin, & Shaw
8737 Colesville Road, #800
Silver Spring, MD 20910

Cooper, Philip
Wilder Research Center

Cowan, Charles
Statistician
Opinion Research Corporation
500 E Street, SW
Suite 940
Washington, DC 20024

Dennis, Deborah L.
National Resource Center on
Homelessness and Mental Illness
262 Delaware Avenue
Delmar, NY 12054

Dennis, Michael L.
Research Triangle Institute
3040 Cornwallis Road
Hobbs Building
Research Triangle Park, NC 27709

Dietz, Stephen
Westat
1650 Research Blvd
Rockville, MD 20850

Dolbeare, Cushing
National Coalition for the Homeless
1621 Conn Ave., NW
Washington, DC 20009

Duval, Kathleen
National Governor's Association
444 North Capitol Street
Suite 250
Washington, DC 20001

Friskis-Warren, William
Nashville Coalition for the Homeless
2012 21st Avenue, South
Nashville, TN 37212

Gray, Wendy
National Alliance to End Homelessness
1518 K Street, NW
Suite 206
Washington, DC 20005

Harris, Dana
Homeless Information Exchange

Hoppe, Bob
Economic Research Service

Hopper, Kim
Research Foundation for Mental Hygiene,
Inc.
Building 37
Nathan Kline Institute for Psychiatric
Research
Orangeburg, NY 10962

Horowitz, Carl
Heritage Foundation
214 Massachusetts Ave., NE
Washington, DC 20002

Iachan, Ronaldo
Research Triangle Institute
3040 Cornwallis Road
Hobbs Building
Research Triangle Park, NC 27709

Joel-Holin, Mary
Nat'l Assoc. of Housing and Redevelopment
Officials
1320 18th St., NW
Washington, DC 20036

Lazere, Ed
Center for Budget and Policy Priorities
236 Massachsetts Ave., NE
Washington, DC 20002

Levitan, Sar
Center for Social Policy
1730 K Street, NW
Room 701
Washington, DC 20006

McClelland, Robert
SMS Research and Marketing Services Inc.
1042 Fort Street Hall
Suite 200
Honolulu, HI 96813

Moran, Garrett
Westat
1650 Research Blvd
Rockville, MD 20850

Newman, Sandra
The Urban Institute
2100 M St., NW
Washington, DC 20037

Owen, Greg
Wilder Research Center
1295 Bandana Boulevard, North
St. Paul, MN 55108

Sands, Peggy
Housing Planner
Washington Council of Governments
Suite 300
777 North Street, NE
Washington, DC 20002

Thompson, Ellen
Program Associate
Council of State Community Affairs Agencies
444 North Capitol St., NW
Suite 251
Washington, DC 20001

Thornberry, Jutta
Research Triangle Institute
3040 Cornwallis Road
Hobbs Building
Research Triangle Park, NC 27709

Walker, Chris
The Urban Institute
2100 M Street, NW
Washington, DC 20037

Walker, Phillip
United Way of America
Emergency Food and Shelter Program
601 North Fairfax St.
Suite 225
Alexandria, VA 22314-2007

Waxman, Laura
U.S. Conference of Mayors
1620 I St., NW 4th Floor
Washington, DC 20006

Yasuda, Kathleen
National Coalition for the Homeless
1621 Conn Ave., NW
Washington, DC 20009

Zawisza, Chris
Housing Assistance Council
1025 Vermont Avenue, NW #606
Washington, DC 20005